Graphic organisers
applicability and use for special education teachers in primary withdrawal classrooms in Cyprus

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Acknowledgements

"We become what we behold. We shape our tools and then our tools shape us"

Marshall McLuhan

For my study, I am indebted to those who have shaped me, the course of my academic exploration and my teaching tools; and I too am grateful to my participants who have, with an open mind and willingness, given me their time over the one year period and for so enthusiastically participating in my study, exploring and shaping their own tools. This thesis would not have been possible without them. I am grateful to each of them. Their life stories and experiences kept me motivated and remain truly inspirational to me.

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Abstract

This study explores the dual potential of using graphic organisers for special education teachers and for their students with reading difficulties, within primary-school withdrawal classrooms in Cyprus. The first intention was to explore how special education teachers used graphic organisers; their impact on teaching and learning as well as what encouraged these teachers to add to their teaching repertoire in this way. Graphic organisers are used to convert text into two-dimensional structured maps. They can be used as a supplement to or as a substitute for text in order to provide a visual representation of what is being studied. The second intention was to explore their efficacy in promoting children's literacy development while simultaneously posing questions about teacher development.

The methodology adopted is collaborative action research, which was applied to provide five teachers with the opportunity to co-research their teaching practices, engage in self-reflection and discuss their experiences of using graphic organisers and the impact their use had for both themselves and their students. Data collection consisted of three cycles. Each cycle included one audio-recorded classroom observation during individualised one-to-one instruction within the withdrawal classroom, followed by an audio recorded semi-structured interview, with each teacher. The study contains illustrations of the graphic organisers constructed and used by the teachers in their work. Some data were also retrieved from the diary entries made by the teachers during the one year project.

The participants' experimentation with graphic organisers evolved over the period of the field work, with participants showing increased willingness and eagerness to experiment with alternative types of graphic organisers over time. One notable impact of using graphic organisers for both the teachers and students that emerged was a growth in confidence and motivation. The students demonstrated increased reading comprehension and retelling capacity as well as being able to study independently and were able to adopt the use of graphic organisers as an acquired learning strategy for themselves. The findings suggest that the development of innovative practices by the teachers and the implementation of change were

influenced by two major factors: their pre-dispositional attitudes and how these were realised within their situated classroom reality and the impact of practical contextual factors, such as time constraints, resource limits, pressure from stakeholders and difficulty in deviating from established teaching methods.

This Cyprus-based study shows that working with in-service teachers using collaborative action research can yield positive outcomes for the participating teachers as it encourages them to study their own teaching within their situated reality in order to enrich their teaching repertoire. This allows for slow but steady innovation to penetrate schools, promoting sustainable change with teachers becoming confident and empowered pioneers through experimentation. Moreover, acknowledging the obstacles that special education teachers face within the withdrawal classroom, offers an opportunity for the Ministry of Education and Culture to consider how best to support these services. Special education teachers are willing to experiment with innovation in their classrooms and this can be facilitated by their participation in research that offers sustained support, guidance and interaction with researchers.

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Chapter 1: Introduction

I begin this thesis by setting out some aspects of my biography and my personal interest in the use of graphic organisers. My personal experiences, values and beliefs along with my world view have shaped my identity and have been the driving force in my professional life and behind all my decisions, one of which was to undertake this PhD. I then explain why I chose to work with special education teachers within primary withdrawal classrooms in Cyprus to explore the educative potential of graphic organisers. Following this, I set out the research questions pertaining my study. Finally, I provide an overview of the chapters into which my thesis is divided.

1.1 Biography and Personal Interest

My study has been shaped by my world view encompassing my pre-dispositional values and beliefs engrained in my upbringing as a hearing child of Deaf[1] parents. Therefore, I begin this chapter by positioning myself and providing some aspects of my biography which have influenced my decision to undertake this study. As a hearing child of Deaf parents, I was raised bilingually, using the Cypriot Sign Language to communicate with my parents and Greek to communicate with hearing people. My brother and I were always aware of the necessity to instantly switch between languages and always having to deploy one of these depending on who we were interacting with. This ability was given to us by our parents who use Greek when interacting with hearing people but Cypriot Sign Language with their children and Deaf friends. I am often asked whether having Deaf parents made any difference to my life. On reflection, I can confidently say that it did. My life is richer in so many ways because of them and the experience of growing up with Deaf parents.

[1]The use of the uppercase designation in the word Deaf, signifies that my parents consider themselves as culturally Deaf, a definition that describes an individual with hearing loss, who considers themselves as being part of the Deaf community. Being culturally Deaf is based on a sense of cultural familiarity, whereby individuals are connected with experiences associated with being Deaf, participate in social interactions with other Deaf people and share similar traditions and social behaviours. The sign language (in this case Cypriot Sign Language) is an integral feature of the Deaf culture, being the most prominent method of communication used.
The opposing distinction used in the literature is the word deaf, with a lowercase designation, representing individuals with moderate to profound hearing loss.

My parents were a living example that disability does not define a person. It is simply part of who they are. Despite their disability, the hardship and societal rejection they faced, they never gave up and they always kept going proving society wrong. As an example, my parents faced criticism and doubt as to whether they could raise hearing children without impacting their cognitive development and educational progress by raising them as bilingual. Every now and then, they would be judged by hearing people who would meet them with curious eyes and assume that they did not talk or were incapable of understanding the world around them because they could not hear. However, they have proven that all these doubts and criticisms were unfounded, leading successful lives with their hearing children growing up without any issues.

Throughout my life I have witnessed that compensating for a disability does not mean that you compensate so that you fit into society. Compensating is simply a way of finessing and adjusting individual skills, tools and weapons proving that there is no need for exclusive societies, that there is no need to divide society at all. People with any form of disability enjoy doing the same things as everybody else. Sometimes they simply do things differently. When I was a child, my Deaf parents used a fax machine to communicate with their friends and family before mobile phones and the possibilities they offer, such as video calls and texting, took over the world. When they wanted to see how a friend or a family member was, they would visit or ask their children to call. Rather than listening to the news, they read about it in the newspaper. They love watching films, but rather than turning the volume up, they read the subtitles to *"see"* the dialogue between the actors. If they are watching a programme without subtitles, they will ask for my brother's or my help in interpreting using the Cypriot Sign Language. In this way, my parents taught me that asking for assistance or support, when the disability necessitates that things are done differently, has no adverse effects nor is a personal failure.

Despite their ability to communicate with hearing people and compensate for their disability, they did face some linguistic and reading difficulties. These were mostly due to the poor education they received as students as well as due to the fact that sign language does not follow the same grammatical or syntactical format as any

spoken language. In practice, that meant that if a piece of writing, whether a letter, an article or a book chapter, was not completely comprehensible to my parents, they would turn to my brother and I to explain it, summarise it, or even re-write it using slightly different vocabulary or different sentence structure. A similar process was followed when my parents would have to write a piece. They would give it to us to review and amend to follow the structure of the Greek language. Thus, for me it always made sense to alter a text if its meaning failed to be comprehended by the reader. This personal experience has directly shaped my attitudes towards reading instruction and comprehension and the need to seek out alternative tools, such as the use of graphic organisers that could be utilised to deploy knowledge and information in a different way, accommodating the individual needs and characteristics of the learner.

As a student, I attended both mainstream primary and secondary state schools which were inclusive of students with mild learning difficulties but excluded students with severe learning difficulties, who were educated in special schools as is still the current practice in Cyprus. Students with mild learning difficulties were expected to fit-in and blend in with their peers without learning difficulties. We were all expected to meet the requirements and performance expectations set out in the National Curriculum formed by the Ministry of Education and Culture in Cyprus.

During my years as a primary school student I witnessed the implementation of a specific practice, which I later discovered was one of the so-called inclusive practices integrated into mainstream schools. In more detail, I remember a teacher arriving at the school on specific days each week. We were told by our classroom teacher that they were a teacher who offered additional assistance and support to students who struggled with their homework and could not participate in the general classes because they *"struggled to understand"* the lesson. These teachers always came into the classroom during lessons perceived as of secondary importance, such as music and art, knocked on the door calling the name of my classmate who was identified as a student with special educational needs. They both then walked out and went into the small classroom at the end of the hallway which we all knew was for those additional support lessons. These classrooms are called withdrawal classrooms and this term is further discussed in the next chapter.

My secondary education allowed me to witness a slightly different practice taking place. The students with special educational needs were not called out of the mainstream classroom. On the contrary, they attended all classes along with their classmates but received additional individual lessons after school from each subject teacher.

I, therefore, grew up believing that students with special educational needs were included in general mainstream schools along with their peers. They received additional support from a special education teacher during primary education and from their subject teacher during secondary education. These were the inclusive practices I witnessed in Cyprus. For me, that made sense. As my parents had instilled in me, it made sense to offer support, to adjust the lesson to the student with special educational needs and not the other way around.

Having had this experience in mind, and once my secondary education was completed, I had to decide what career path I wanted to follow. I have always been sensitive towards students with special educational needs. I was confident that I could use this sensitivity as fuel by training as a special education teacher, by being that teacher who offered the additional support to students who struggled with learning. My belief that disability is not a defining characteristic of a person solidified my decision to follow this path. My dream was to be a teacher who values the importance of individual differences of students and uses these differences to inform her teaching practices.

My interest in reading difficulties and the use of graphic organisers emerged while I was studying for my Ptychion (Bachelor Degree) in special education. During my studies, I was immersed in exploring the complexities of what type of education, segregational or inclusive, was most effective, and what teaching practices could be used to achieve higher performance levels for students with reading difficulties. In parallel, I was introduced to the use of concept mapping in education and other contexts. I was intrigued by this tool which is part of the wider family of graphic organisers (the distinction is discussed further in chapter 3). I, therefore, decided to research their use, making concept mapping the focus of my dissertation which

aimed at exploring their effectiveness for reading comprehension of Deaf students. In general, my research offered the opportunity to gain an insight into the wider use of graphic organisers in teaching students with special educational needs.

Upon my graduation, I could have simply waited until the day I was called to work in primary schools by the Ministry of Education and Culture in Cyprus, bearing in mind that teachers who obtain a degree in education are requested to enrol on the National Register for teachers, and wait for their turn in securing a position in a state primary school. This is often considered to be the only route offered for placement as a teacher in schools, as there are not many private primary schools where a teacher can apply directly for a position. However, I was eager to study more about educating students with special educational needs in more depth. Therefore, I proceeded with further studies for a Master of Arts degree in the effective use of technology for students with special educational needs.

My involvement with graphic organisers and reading difficulties along with a growing interest in scholarly research, led to the idea of exploring the use of graphic organisers as a teaching tool in withdrawal classrooms, specifically offering support to students with reading difficulties. My consideration of previous studies in reading difficulties and my ongoing sensitivity and interest in this matter, was the turning point for my decision to progress to a PhD that could fulfil my aspirations and put me in a position of being able to explore and observe the use of this tool.

To conclude, I am a special education teacher qualified to work within withdrawal classrooms myself. My research is an opportunity for me to explore and witness the educative potential and use of graphic organisers in practice within these settings. I believe that the participation and collaboration of my fellow special education teachers in Cyprus who already work within this context was essential in order to be able to explore this matter in-depth. My dual role as a special education teacher and as a researcher has led me to search out and construct a flexible methodological framework, namely collaborative action research, that allows for the coexistence of these two aspects of my identity.

1.2 Researching special education teachers and their use of graphic organisers – My objectives

This study is inspired by my own experience as a special education teacher. I have experimented with the use of graphic organisers with my own students in the past and I became fascinated with their potential and wanted to reach out to other special education teachers to further explore their applicability. Graphic organisers are used to convert the often complex traditional form of text into two-dimensional structured maps, presented as a supplement to or as a substitute for text, in order to give a visual representation of knowledge. As I will explore in chapter 3, I concentrate on some key aspects of contemporary learning theory and I acknowledge the social embeddedness of learning (Illeris, 2017), which has allowed for innovative and interactive teaching approaches and tools, such as the use of graphic organisers, to enter into contemporary classrooms. Although existing literature (Dexter & Hughes, 2011; Kim et al., 2004) already highlights the potential of graphic organisers for promoting learning, there is still much to discover in respect of the conditions that affect their usefulness, such as the characteristics of students, of their teachers, of the learning material and of the graphic organisers themselves. This is an area that my research contributes to.

In my study, I aimed at exploring the factors that influence teachers' decisions to use alternative teaching tools (such as the use of graphic organisers), when teaching students with reading difficulties. What motivates them to use innovation, based on their situated reality within their withdrawal classrooms, which is a distinctive setting. Whilst I appreciate that withdrawal is a sensitive matter and can be considered as contentious, my research is built on an acknowledgement that in Cyprus, students with reading difficulties are included in general classrooms but also receive additional individualised educational support from a special education teacher in separate classrooms (withdrawal classrooms). This is one of the established practices of the Cypriot special education system. My thesis, however, recognises that the placement dilemma is a debateable position (Avramidis & Norwich, 2002), with schools sometimes struggling to respond to the needs of all students and apply inclusive environments (Angelides, 2004). As I will discuss in chapter 2, student individuality and students' personal characteristics as to how they

develop as learners are essential markers, forming the basis upon which teachers act and react in order to promote inclusion as a positive education experience, regardless of what inclusive practice is followed.

The rationale underlying my research is that teachers play an integral part in fostering and encouraging the performance of their students with reading difficulties, acting as mediators between students and their learning. However, in doing so, teachers face ongoing complexities in assessing various teaching methods and tools in order to find the most suitable ones for their students (Chrysostomou & Symeonidou, 2017). This is attributable to their distinctive situated reality. Moreover, by seeking to enrich their teaching inventory through experimentation, they effectively engage in ongoing and reflective personal and professional development, which I believe is an important practice for in-service teachers.

My research was situated and tailored for use in collaboration with other special education teachers, adopting a collaborative action research methodology (Elliott, 2006). In selecting this methodology, I wanted to give the teachers the opportunity to co-research their teaching practices whilst they discussed their personal experiences and life stories with me. Thus, this methodological approach allowed for mutual rewards in participating; for myself holding a dual identity as a researcher and special education teacher and for the special education teachers who participated as collaborators in my research.

My aim was to gain an understanding of the practical educative potential of using graphic organisers to support students' literacy development. I also wanted to understand what influenced special education teachers to experiment with alternative teaching methods and tools and how such experimentation could be promoted more widely, facilitating personal and professional development and informing pedagogy for the participating special education teachers and myself.

1.3 Research Questions

Keiny (1993) considers learning to be an educational event based on a reciprocal and ongoing interaction between teachers and students, necessitating decisions to

be made to address teaching dilemmas. This is carried out by assessing the applicability of alternative teaching methods and tools based on the existing reality, student individuality and specific goals set out for each lesson. The overall belief underlying my research is that the teacher, acting as both an educator and mediator between students and learning, faces ongoing challenges and complex classroom situations, necessitating their studying of learning situations based on their authentic and personal experience. This studying of learning situations aims at enriching their ordinary inventory and teaching repertoire and engaging effectively in personal and professional development. Focusing on professional development in Cyprus, this is currently principally associated with voluntary day seminars organised by the Ministry of Education and Culture (Chrysostomou & Symeonidou, 2017). Building on this context, I believe that promoting a collaborative school-based research programme, in the form of collaborative action research, is a new experience for the teachers as it directly responds to their situated authentic classroom reality and the needs of their students, whilst it aids professional autonomy. This aligns with Kennedy (2014), who argues that professional development activities in the form of action research projects provide the opportunity to teachers to respond to questions about their personal teaching practices, effectively transforming their practices in an autonomous way.

In light of the above, I developed three core research questions, responses to which are based on the opinions and perceptions of the special education teachers that participated in my research:

- How are graphic organisers deployed by the special education teachers within withdrawal classrooms?

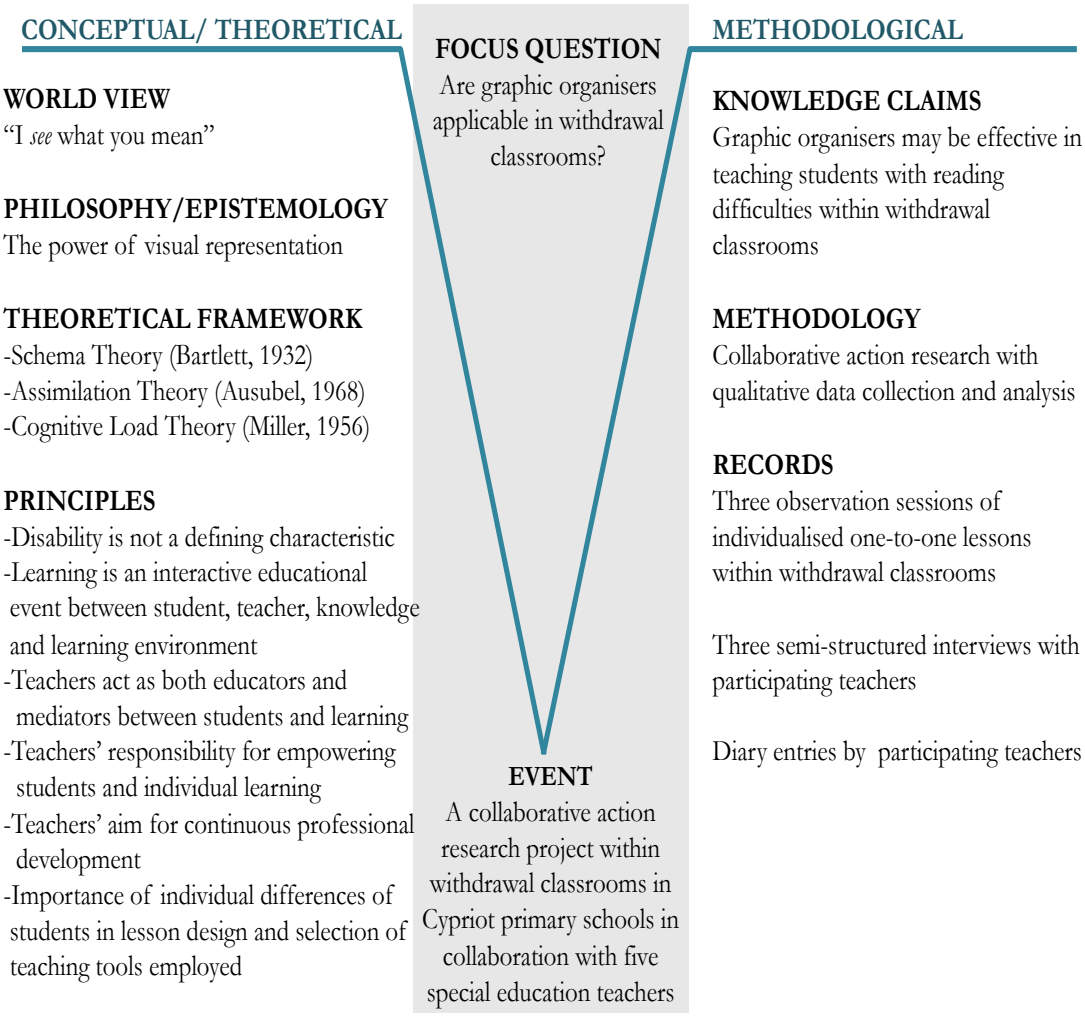
- What is the impact of using graphic organisers on student learning and teacher development?

- What influences special education teachers to change and develop their professional practices through innovative approaches?

1.4 Thesis Structure

A summary of the thesis is presented in Graphic Organiser 1.1. This is a type of graphic organiser called a knowledge vee developed by Bob Gowin in the 1970s. Joseph Novak (1998) subsequently adapted it, arguing that the knowledge vee provides for a distinct overview of any research study. Thus, I have adapted this template and have incorporated details of my research to provide a visual representation of my thesis. The knowledge vee should be read from top to bottom and left to right. On the left side is an overview of the theoretical framework underlying my research and on the right side is an overview of my research design and implementation. Each of the elements of the knowledge vee are described in detail within the thesis's chapters.

Graphic Organiser 1.1: My study in the form of a knowledge vee adapted from a template created by Gowin (1970) and refined by Novak (1998)



This first chapter acts as an introduction to my thesis, providing an overview of my research and its foundations, as well as sharing parts of my biography and professional interest in the use of graphic organisers. My research concern has grown from my beliefs and values as well as my commitment to the need for a flexible and effective education of students with reading difficulties and the professional development of their teachers. The chapter ends with detailing my research questions and the aims that frame my study.

Chapter 2 outlines the Cypriot setting and provides background information about the established practices and framework where my research (labelled as event on the knowledge vee) is situated. It also sets out the main terminology used throughout my thesis. Finally, I revisit my research questions in light of this context.

Chapter 3 elaborates upon the theoretical framework underlying my research, outlined on the left side of the knowledge vee, and stresses the role of learning theory behind my research inquiry. It also discusses the notion of the visual representation of knowledge and visual displays standing as referents to information playing a significant role in learning, ideas that form my world view (labelled on the left side of the knowledge vee). Conventionally, these concepts would have been described within the literature review.

Chapter 4 focuses on discussing the main characters participating in my research, students with reading difficulties and their special education teachers. This discussion leads to the emergence of the substantive theoretical principles of my research, which are outlined on the left side of the knowledge vee. These principles emanate from literature relating to reading difficulties, theories of reading and literature concerning teachers and the importance of continuous personal and professional development. In my research, teachers are regarded as having a crucial role in shaping the learning outcomes of students.

Chapter 5, which is visually represented on the right side of the knowledge vee, discusses the methodology and methods used in my research, namely collaborative action research and qualitative data collection, and explains the reasoning behind my decision to proceed with these. This chapter also provides an overview and

analysis of my entire research journey from its inception to its implementation and ultimate conclusion using the stages of an action research cycle as a template. The four elements discussed are: planning, implementation, analysis and reflection on data collected. The headings given to each section: Plan, Act, Observe and Reflect, are the most commonly used names given to the stages of an action research cycle (Cohen et al., 2011). The chapter provides an explanation for the presentation format utilised in the data analysis chapters that follow, and concludes with a discussion on the ethical considerations affecting my research.

Chapter 6 provides a descriptive account of the study, describing all classroom observations, expanding on my observation notes as well as presenting some of the main ideas from each of the interviews, primarily in the form of graphic organisers that I designed for each of these interviews. That data (along with the teachers' diary entries) were the main data collected from my research (labelled as records on the knowledge vee). Given the small number of the participating teachers (five teachers), I feel that providing a detailed account of this data is viable and provides a holistic picture of my study. The use of graphic organisers for the purpose of presenting the interviews also provides an alternative way of presenting research data.

Chapter 7 engages in a detailed discussion and critical analysis of the findings arising from my data against each of the research questions, as well as deliberating with existing literature in this field.

Finally, Chapter 8 contains a critical discussion of the core findings of my research and clarifies their inter-relationship and implications. This final chapter also acknowledges the wider contribution of my research together with a critical consideration of the limitations and policy implications of the study, identifying areas for further research.

Chapter 2: Study Contextualisation

2.1 Introduction

This chapter is divided into three parts. The first part provides an overview of the context where my research is situated. The second part elaborates on the main concepts and terminology that are used throughout my thesis. The final part revisits the aims and research questions of my research, in light of this specific context and setting of my study.

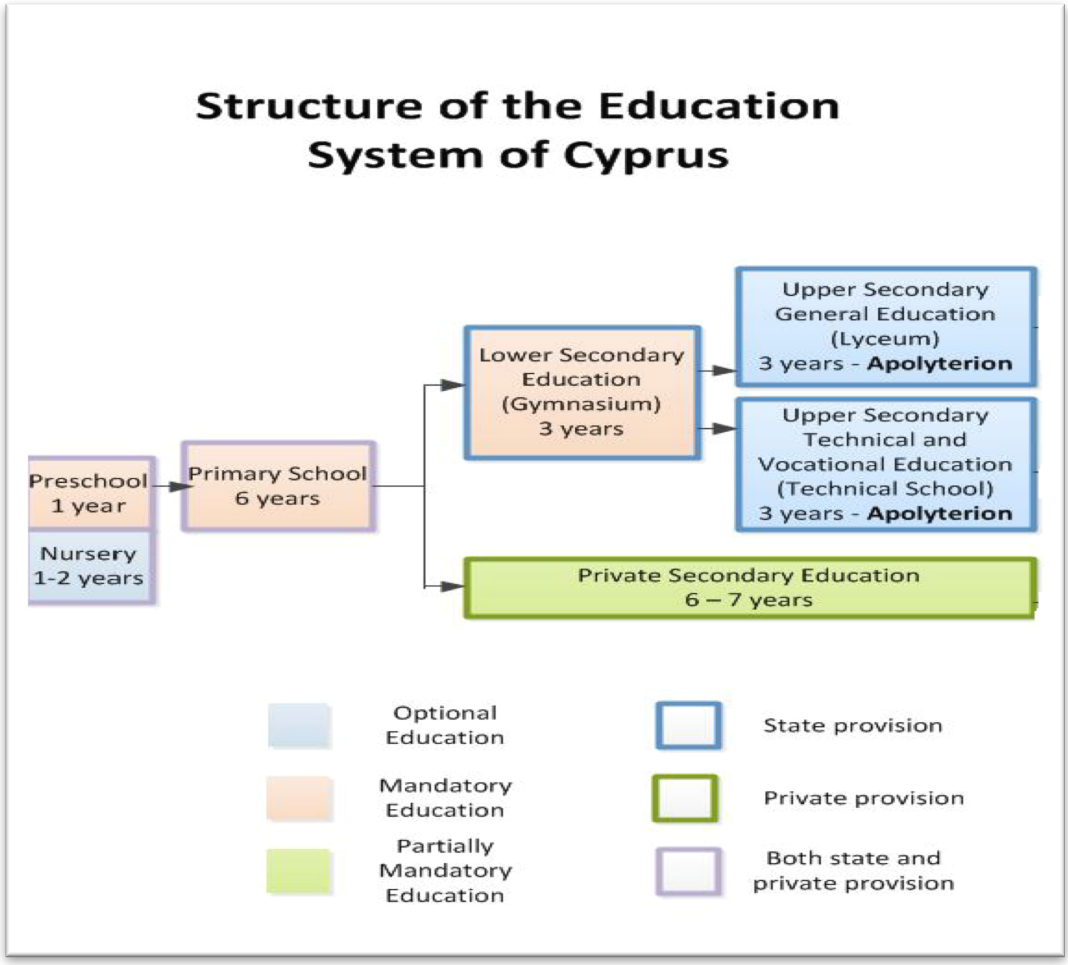
2.2 Setting

Setting the scene in which a research project is situated is an integral part of a thesis, as it offers insight into the specific environment and setting characteristics that influence the activities under consideration. In respect of the contextual information of my thesis, I start with a description of the education system in Cyprus, divided into mainstream and special provisions, along with their established practices and structures.

2.2.1 Mainstream education system in Cyprus

In order to understand how students with special educational needs are included in mainstream school settings, a brief look at the overall education system in Cyprus, especially in relation to state schooling, is needed (Graphic Organiser 2.1). In terms of structure, the first educational level is the one year pre-school, which is compulsory for all children aged four years and eight months old to five years and eight months old. The second educational level is primary education that lasts for six years starting from the age of five and eight months old. Moving on to secondary education, there is lower secondary education, also known as gymnasium with three years mandatory attendance and the upper secondary education which is divided in two alternative options. The first option is the lyceum with three years non-mandatory attendance and the second option is vocational education with three years non-mandatory attendance. At completion of secondary education students receive an Apolyterion which is the certificate of completion.

Graphic Organiser 2.1: Cypriot Education System
(http://www.highereducation.ac.cy/en/educational-system.html, accessed on 02/04/2018)



The education system in Cyprus is highly centralised with a National Curriculum designed and controlled by the Ministry of Education and Culture. The Ministry also designs and provides all textbooks and resources to schools. The monitoring of the application and service of the National Curriculum is undertaken by school inspectors who regularly visit schools. Currently all schools follow a new curriculum that has been introduced and complies with the strategic educational objectives set out by the European Council (2009). The comprehensive reform of curriculum was initiated in 2004 by the Educational Reform Committee under the Ministry of Education and Culture with the new curriculum put in place in December 2010.

Overall, the new curriculum focuses on student-centred teaching aiming at students becoming independent learners acquiring knowledge across various disciplines

(such as literacy, mathematics and linguistics), with attitudes of contemporary citizenship and skills such as critical and reflective thinking, creativity, analytical and problem solving skills as well as empathy (Philippou et al., 2014). The curriculum describes teachers as professional pedagogues. Professional pedagogue refers to the teacher who is autonomous and flexible in curriculum development and its application in the microcosm of the classroom. A teacher that is a well-informed researcher influencing student development, recognising the educational and social role of school and the importance of continuous professional development (MOEC, 2008).

2.2.2 Special education system in Cyprus

Special education in Cyprus can be examined in comparison with its UK counterpart, given that the UK education system has directly influenced Cypriot educational philosophy and the evolution of educational legislation relating to special education for the last 20 years. In Cyprus, educational reform has been on the political agenda since UNESCO (1997) reported that despite classrooms being organised as mixed-ability groups, there was no clear policy or provision for curriculum differentiation and methodology as to how to accommodate equal participation and benefit to all students (Angelides, 2004). Following this, the Ministry of Education and Culture organised seminars for teachers and distributed circulars to schools promoting the effective teaching of students with special educational needs. In parallel, the Cypriot Parliament voted in new laws focusing on special education in 1999 and 2001, namely the Education and Training of Children with Special Needs Law of 1999 (113(I)/1999) and as amended in 2014 (N.87(I)/2014); the Education and Training of Children with Special Needs Rules of 2001 (K.D.P.186/2001) and as amended in 2013 (K.D.P.416/2013); the Mechanism of Early Identification and Intervention of Children with Special Needs Rule of 2001 (K.D.P.185/2001).

These Acts established a contemporary legal context for special education, that replaced the Special Education Law of 1979 (N.47/1979), which was considered anachronistic by the Ministry of Education and Culture, when compared to international standards. This law was condemned for the general descriptions it used, for non-acknowledgement of the variances amongst the levels of and types of

learning difficulties that a student might experience as well as for promoting segregated education for all students with special educational needs (Unesco, 1997).

Under the new legislation of 1999, it was established that the necessary support and assistance should be provided by the state for students with special educational needs to develop their abilities (psychological, social, educational) in all forms of education (pre-school, primary, secondary and higher education) along with training for future work placement. The state is considered responsible for providing special education and training to students with special educational needs from the age of three until the conclusion of their higher education studies.

A "child with special needs" is defined within the 1999 Act (below). The translation in English is retrieved verbatim from the legislation documents that set out the definition in both Greek and English:

> *A child having a serious learning or special learning, functioning or adjusting difficulty caused by physical (including sensory), mental or other gnostic or psychological deficiencies and having need of special education and training. A child shall have learning, special learning, functioning or adjusting difficulty if:*
>
> a) *It has a seriously bigger difficulty comparing with the majority of the children of the same age; or*
>
> b) *It has a disability which excludes or hinders him from using the educational means of the sort the schools for children of the same age generally provide.*
>
> (Education and Training of Children with Special Needs Law of 1999 (113(I)/99: 339))

The 1999 legislation also stipulates that when the school (the head-teacher or a member of the faculty) reports that a student might be categorised as a "child with special needs" as defined by law, then the district committee in each city assesses each individual case within two weeks from the day of report. The committee

consists of experts in the special education field. Each member individually assesses the child under their professional capacity and submits a report indicating the best educational way forward for the child.

The educational reform as it currently stands and is described in the legislation also sets out the special education practices that should be provided in Cyprus. These are the following:

a) Inclusion of the student in the mainstream classroom adjusted to fit the student's needs. Within this framework, a special education teacher works alongside the classroom teacher and is also responsible for establishing an individualised education program to provide the necessary additional educational support to the student. This is for a pre-defined number of 35minute teaching sessions each week. The number of individual sessions depends on the severity of the learning difficulty experienced by the student. The student is taken out of the mainstream classroom and into a withdrawal classroom where they work with the special education teacher on one-to-one basis. This is the most commonly used form of special educational provision provided in Cyprus. It is applied for almost all forms of learning difficulties except for severe and profound learning difficulties when a more specialised individual teaching programme is provided in special schools.

b) Inclusion of the student in the mainstream school but studying full time in a separate unit where students with similar difficulties attend and form an "ειδική τάξη" directly translating to "special class". A special education teacher is appointed as their teacher. This form of education was usually applied for deaf students but nowadays with the wider use of hearing aids and cochlear implantation, deaf students are provided with education that falls within the first set of practices (above).

c) Attendance at a special school for students with severe and profound learning difficulties. This form of education is usually followed when the student who is identified as having severe or profound learning difficulties cannot attend a mainstream school due to the severity of their difficulties necessitating a

differentiated and more individualised support. The faculty at these schools consists of special education teachers, educational psychologists, speech therapists and a head-teacher. The education provided is individualised according to the needs of each student.

2.2.3 Withdrawal classrooms

The independent classrooms where individual one-to-one sessions with the special education teachers take place are called "τμήματα ένταξης" which translates as "inclusion classrooms". I believe this direct translation fails to convey the idea behind the Greek definition and could be misleading, as students are physically withdrawn from the mainstream classrooms to attend a separate classroom. Therefore, for the purposes of my thesis these classrooms are termed as withdrawal classrooms. This follows international terminology recognising the use of separate classrooms, whereby the students identified as students with special educational needs are withdrawn from the mainstream classrooms to receive individualised support from a special education teacher (Norwich, 2008; Thomas & Vaughn, 2004).

2.3 Description of Main Concepts

In this section, a description of the main concepts that are used throughout my thesis as well as the terminology and situated structures (such as the linguistic context and contemporary educational practices) is included in an effort to identify the basis upon which my research has developed.

The terms that will be discussed initially, namely students with special educational needs and students with reading difficulties, are based on the acknowledgement of the "People First" approach, advocating the use of people first language (people with disabilities) to communicate, acknowledge and refer to individuals with disabilities in psychological and educational literature (American Psychological Association, 1994; Burris, 1992). People First Language is regarded as a form of linguistic descriptivism used as a demonstration of sensitivity towards lifting the attitudinal and environmental barriers placed on individuals with disabilities due to prejudice and negative stereotypes. The aim is to emphasise the person as an

individual rather than highlight and focus on the disability, regarded as one of several aspects of their individuality rather than the defining and primary characteristic (Wright, 1991). This approach has been disputed by those who advocate for an identity first approach (Brueggemann, 2013; Davis, 2013), arguing that the people first approach *"subtly implies that there is something inherently negative about disability"* (Dunn & Andrews, 2015: 259). I stand by the belief that a disability is not a defining characteristic of a person but just one aspect of a multi-faced individuality. For the purposes of my thesis and for my participants, being students with reading difficulties, I address the person first before highlighting the disability. Any terms that deviate from this form of linguistic expression within my thesis are used in quotes and are a direct representation of the author.

2.3.1 Students with special educational needs

For the purposes of my thesis the term students with special educational needs refers to students who have a disability or experience specific difficulties in their learning. This term is used to refer to students with specific learning difficulties (such as reading difficulties and writing difficulties); emotional difficulties; mild or severe learning difficulties; and, sensory or physical difficulties.

Historically, as introduced by Kirk (1963) learning difficulties were understood as intrinsic, neurological differences affecting the acquisition of academic skills (Waber, 2010). The term has since developed to represent unforeseen underachievement at school (Fletcher et al., 2006; Gesten et al., 2001). In 2004 the Individuals with Disabilities Education Act (IDEA), under the USA framework, which is one of the most influential and widely cited definitions used in the field (Buttner & Hasselhorn, 2011; Kavale et al.; 2009; Scanlon, 2013), considers learning difficulties as specific learning difficulties that cannot be attributed to any external factors, such as socio-economic disadvantaged environments, or being a direct result of cognitive impairment, emotional difficulties, hearing, visual or motor difficulties. My study is aligned with the 2004 IDEA Act, within which reading difficulties is one of the categories of specific learning difficulties.

2.3.2 Students with reading difficulties

For the purposes of my thesis I am using the term students with reading difficulties to refer to the students that my research focuses on. These students experience reading difficulties, struggling with comprehending an organised whole text. They may be students who also have weaker language skills, such as vocabulary knowledge, grammar and syntax (Nation et al., 2010), as well as higher-order language difficulties such as difficulties with inferencing and understanding figurative language, metacognition and story structure knowledge (Cain, 2010). However, my research is interested in focusing on students whose reading difficulties is not a sign of a more general problem that goes beyond literacy to include dyslexia, cognitive impairment, behaviour and emotional difficulties, motor, hearing or visual difficulties and any neurological differences such as autism (Buttner & Hasselhorn, 2011). This definition seems to agree with the category of primary learning difficulties as initially described by Rabinovitch (1968) who argues that such difficulties are inherent and idiosyncratic, and independent from any other cognitive difficulties.

2.3.3 Greek: The linguistic context of my study

Greek, which is the main language spoken in Greece and Cyprus, is a morpho-phonic script (Venezky, 1995), a highly transparent language with consistent orthography. It is characterised by a clear grapheme to phoneme correspondence making it more transparent for reading (Porpodas, 1999). However, it is considered opaque and less transparent for spelling as it is characterised by *"a one-to-many phoneme-grapheme mapping"* (Porpodas, 2006: 192).

In detail, when considering the feedforward direction from orthography to phonology, which is needed for reading aloud, reading in Greek is carried out based on the letter sequence without lexical or morphological information, achieving a consistency of 95.1% at the grapheme-phoneme level (Protopapas & Vlachou, 2009). Twenty-four letters (plus the letter ς which is a final only letter), of which seven are vowels, represent thirty-two phonemes. All consonants are pronounced consistently within a clear phonological structure with a predictable pronunciation due to the open consonant-vowel syllables, with very limited words with exceptional spelling (Nikolopoulos et al., 2003; 2006). There are few monosyllabic

words, mostly connecting words, due to the morphological system resulting in words with derivational and inflectional affixes (Douklias et al., 2009). Moreover, stress falls only on the last three syllables of a word, indicated by an acute accent on that syllable (Douklias et al., 2009; Protopapas et al., 2007).

When considering the feedback direction from phonology to orthography, which is needed for spelling, spelling in Greek is more complicated achieving a feedback consistency of 80.3% (Protopapas & Vlachou, 2009). Spelling depends on many principles such as phonological identity, morphology, etymology, grammatical inflections and the historical origin of each word (Douklias et al., 2009; Porpodas, 1999; Protopapas & Vlachou, 2009). The complicated mapping between graphemes and phonemes is exemplified in various ways. Some indicative examples listed by Petrounias (2002) and Protopapas and Vlachou (2009) are:

- the phoneme /i/ is represented by the graphemes ι, η, υ and diphones ει, οι, υι
- consonants are sometimes spelled with digraphs given that there are fewer consonant letters than phonemes, such as /b/ represented by μπ
- single letters pronounced by two phonemes, such as ψ pronounced as /ps/
- content-dependent transcription, whereby spelling depends on adjacent phonemes and letters, such as ζήλεια versus τέλεια. Thus, reading these requires a non-sequential strategy, i.e. looking what comes after, to read what comes earlier (Aidinis & Nunes, 2001).

Greek is also a highly inflected language, whereby different morphemes are needed to denote voice (active or passive), number (singular or plural) and case (nominative, genitive, vocative, accusative), which are also influenced by the grammatical position (Nikolopoulos et al., 2006).

Finally, Diamanti et al. (2014) have produced a comprehensive description of the Greek morphology in an effort to highlight the complexity of Greek spelling. Nouns have different endings to denote number, case and gender (masculine, feminine or neuter), with up to seven different forms for each noun, with individual spellings and suffixes. The addition of suffixes to the stem of a noun is used to produce new

word derivatives. Adjectives follow a similar pattern and have up to fifteen different forms, again with individual spelling and suffix and the possibility of creating new words with derivational suffixes. Verbs have a greater morphological variety and are more complex with up to twenty-nine different forms in the active voice and twenty-six in the passive voice. They are inflected by tense, voice, aspect, person and number. The stem and ending denote different aspects of morphology, with up to three components each indicating different inflections (such as person, tense and aspect).

2.3.4 The profile of Greek students with reading difficulties

Drawing from the above, I argue that the reading performance of students should be interpreted according to the unique linguistic characteristics of each language. Referring to the linguistic context of my study, research on the Greek language (Nikolopoulos et al., 2003; 2006; Porpodas, 1999) indicates that Greek readers with reading difficulties attained similar performances of reading words and non-words as same aged readers, and they showed proficient alphabetic skills and phonological awareness. In addition, students with and without reading difficulties master reading decoding early in their education, due to the transparency of Greek language (Aidinis & Nunes, 2001; Georgiou et al., 2008; Protopapas & Vlachou, 2009).

However, Greek students with reading difficulties struggle with morphological spelling with errors evident in the use of suffixes (derivational and inflectional), and difficulties with spelling multi-letter morphemes (Nikolopoulos et al, 2003; Protopapas et al., 2012). Moreover, comparative research by Diamanti et al. (2014) with students with reading difficulties aged eleven to thirteen years old, and same age groups as well as spelling age control groups, found that the spelling performance of students with reading difficulties in morphological components of nouns and adjectives was similar to the performance of younger typically developing spellers. The research also argues that Greek readers seem to pay more attention to the last inflected syllable of the word as opposed to English readers who pay attention to the initial stems of the word. This research suggests a spelling development delay, whereby the performance of students with reading difficulties seems to follow the performance of younger typically developing spellers but is

weaker when compared to typically developing same age students (Diamanti et al., 2014).

In an attempt to distinguish amongst specific errors on word types and suffixes, Diamanti (2005) tested eleven to thirteen year old students in comparison with same aged typically developing readers as well as younger aged typically developing readers. She concludes that different parts of Greek words necessitate the use of different metalinguistic knowledge that does not develop homogenously. Additionally, she notes that students with reading difficulties persistently struggle with phonological spelling making errors in the phonological structure of words.

Noting the discrepancies that are evident within research on the Greek language as well as comparable reports, Protopapas et al. (2013) carried out a quantitative analysis focusing on the distribution of errors made by 542 typically developing students and 44 students with reading difficulties, on two dictation tasks (a passage and a word list). Based on this data, the most notable characteristic of the profile of students with reading difficulties was their non-distinctiveness from the other students, with their performance aligning with their reading level and phonological development. According to research by Nikolopoulos et al. (2003) Greek students with reading difficulties seem to use a correct spelling strategy, spelling words in phonologically acceptable ways, despite making morphological errors, indicating that the hypothesis of a phonological problem in their performance is not validated. However, the fact that phonological errors made by students with reading difficulties were more frequent than those made by typically developing students, aligns with the conclusion by Diamanti (2005) described earlier. More importantly, however, it is argued that absolute reliance on spelling errors could be misleading in determining whether a student has reading difficulties.

Taking into account the limited differences between students with reading difficulties and typically developing students on these levels, it is evident that the transparency of the Greek language creates positive conditions for the successful development of language skills by readers with reading difficulties (Caravolas et al., 2005; Nikolopoulos et al., 2006; Tafa & Manolitsis, 2012). However, their performance is at a slower rate making reading a laborious cognitive task (Porpodas,

1999), unlike proficient readers who require less time to perform well due to their acquired automatization skills (Tafa & Manolitsis, 2008; 2012). The time delay in reading tasks experienced by Greek students with reading difficulties is also evidenced in other studies on languages with regular orthographies such as German (Wimmer, 1993) and in contrast with studies on languages with irregular orthographies such as English (Frith et al., 1998). Comparative research carried out by Goswami et al. (1997), between Greek and English students learning to read, aligns with this conclusion, arguing that Greek students develop a strong decoding system and orthographic lexicon early on in their education, which enables a clearer prediction of the reading difficulties that would be expected by these students, assuming that a time lag in reading might be an important performance indicator.

To conclude, following a careful interrogation of the literature in the area of reading difficulties and their link with linguistic backgrounds, I argue that there is a need to identify and rely on the unique linguistic features of each language when we consider the definition of reading difficulties and the performance of students with reading difficulties. The degree of transparency and orthographic depth across different languages could influence the types and severity of problems faced by learners within each linguistic context (Porpodas, 1999; Tafa & Manolitsis, 2012; Ziegler & Goswami, 2005). In terms of my thesis, I believe that the linguistic context of my research and the transparency of the Greek language and consequently the subtle difficulties it may create for readers, justifies the use of the term students with reading difficulties, as conceptualised earlier in this chapter.

2.3.5 Inclusion

In order to further set the stage upon which my field work has been developed, it is necessary to briefly elaborate on the working definition for inclusion used throughout my thesis. Critically reviewing the relevant literature, I found that this is built upon diverse ideologies and practices. Therefore, significant terms such as disability, inclusive practices and their impact on educational and political practices in designing a targeted educational system such as the special education system, need to also be unpacked. However, it is beyond the scope of my thesis to provide a comprehensive account of these concepts, rather I attempt to chart some of the

main arguments and claims derived from the relevant literature in association with these concepts.

2.3.5.1 Defining disability

Historically, the debate about conceptualising disability has been situated between a medical model and a social model, whereby both ideologies engage in defining the disability as a problem. The vital question that both models tried to answer is whether disability is located within individuals themselves or within society (Cigman, 2010). The medical model is based on conceptualising disability as a personal tragedy, a deficit from within the body and mind of the individual (Oliver, 1996). The social model was developed as a reaction to the medical model, shifting responsibility onto society for creating a disabling environment (Barnes et al., 2002; Swain & French, 2000). Disability is seen as a social creation (Barnes, 1992). However, these models are being renegotiated in the literature as these are no longer considered adequate in viewing disability holistically. They seem incompatible, whilst the medical model is also regarded as discriminatory (Cigman, 2010). As Shakespeare and Watson (2002) have pointed out *"disability is a complex dialectic of biological, psychological and socio-political factors"* (Shakespeare & Watson, 2002: 24).

The arguments put forth for the renegotiation of these terms, stem from issues of disability identity (Humphrey, 1999; 2000), whereby heterogeneity and the existence of multiple identities within the disability community is recognised; as well as the idea that the divide between people with and without disabilities on the basis of oppression is no longer sustainable (Swain & French, 2000). For example, people without disabilities could be oppressed by social issues such as poverty and racism, whilst people with disabilities could also be seen as oppressors, when for instance they discriminate against people based on sexual orientation (Swain & French, 2000).

In addition, whilst the social model successfully promoted equality in civil rights and social citizenship for people with disabilities, it failed to acknowledge that despite removing social and environmental barriers, there are some disabilities that impose inherent struggles for the individual, such as chronic pain, making social

barriers irrelevant to practical everyday life (Crow, 1996; Swain & French, 2000). Such criticism came from within the disability community as well, with Lord Low, who has a visual impairment, commenting:

> *If education is about anything, it is about influencing and indeed changing the individual child. One may do this by modifying the social environments in which the child is placed, but one cannot eliminate the individual dimension altogether* (Low, 2007: 9).

Authors such as Favalli and Ferri (2016), Hughes (2007), Humphrey (2000), Shakespeare and Watson (2000) and Turner (2003) argue for a new model negating the negative connotations that some current models attribute to disability. Moreover, challenging the limitations of the social model entails promoting individual, fluid and non-restrictive identities not confined by the existing divide based on the disability. Researchers in Disabilities Studies (Thomas, 2007; Corke & Shakespeare, 2002) highlight the significance of acknowledging the personal experience of disability in conjunction with other aspects of identity, such as gender or class. As the European Commission (2013) states, individual identity is a human right and individual differences should be accommodated, thus full inclusion and citizenship is provided to all. Although, it is beyond the scope of my thesis to elaborate further on this discussion. I am taking the stance promoted by the European Union of the UN Convention on Rights of Persons with Disabilities (UNCRPD) (2006) and the Article 13 of the Amsterdam Treaty (1999), stipulating that disability is an evolving concept and addressing it is synonymous with a quest for equality, non-discrimination and overall acceptance of individuality promoting full and effective participation in society.

2.3.5.2 Inclusion and education

For the purposes of my thesis, I position myself in alignment with the European Agency for Special Needs and Inclusive Education (2016) and the Convention of the Rights of Persons with a Disability (2006), whereby inclusion stands for valuing and promoting equal participation of all people in all social and political settings and activities. This approach embraces individuality and diversity, making the system more accommodating and changing the perceptions and values of society

(Ainscow, 1999), effectively allowing for a sense of equal belonging (Thomas & Loxley, 2001). Focusing on examining the concept of inclusion in relation to the educational context where my research is situated, I will now discuss the issues of placement and inclusive practices for students with special educational needs. It is noted that debates within this area have developed and altered in parallel with the change in philosophies, from the medical model to the social model and currently, to a wider and more fluid interpretation. However, an extensive discussion of the concept of inclusion falls out of the remit of my research.

Inclusion and inclusive education encapsulates the idea of re-conceptualising schools and special educational needs on the basis of diversity, whereby all students are seen as individuals with individual needs, abolishing the concept of normality. One of the most cited definitions of inclusive education is *"the process of increasing participation and decreasing exclusion from the culture, curriculum and community of mainstream schools"* (Booth & Ainscow, 2002: 3).

Internationally since the 1980s, communities have been cultivating a culture in favour of inclusive education in the sense of equal participation of all students in mainstream schools. Some examples are the UN Convention on the Rights of the Child (1989), the UN Standard Rules on the Equalisation of Opportunities for Persons with Disabilities (1993), the Salamanca Framework for Action developed by Unesco in 1994 and the UN Convention on the Rights of People with Disabilities in 2006. Arguably, the Salamanca Statement was one of the most significant documents that endorsed the idea of inclusion as a necessity in schools, arguing that inclusive schools are:

> *The most effective means of combating discriminatory attitudes, building an inclusive society and achieving education for all. [Inclusive schools] provide an effective education for the majority of children and improve the efficiency and ultimately the cost-effectiveness of the entire education system* (Unesco, 1994: ix).

Inclusive education is seen as the equal participation of all students in local mainstream schools (Booth et al., 2000), and is concerned with the necessary

conditions under which education of all students could be effective, therefore successful (Barton, 1997; Tomlinson, 2010; 2012). It aims at providing and using the same resources for all students, with the mainstream schools being equipped with the specialised resources that are traditionally associated with special schools, to encourage equal participation of students with special educational needs in the mainstream school. Inclusion is also aligned with necessary arrangements along with any required curriculum adaptation to meet the needs and differences of all students. Sebba and Ainscow (1996) characterise inclusion as a continuous process with which schools review their organisation and curriculum in order to effectively respond to all students, with the aim of providing similar educative experiences to all, regardless of their differences and educational needs. However, this suggests that mainstream education and schools are still regarded as superior (Kauffman & Hallahan, 2005).

Admittedly, however, even if inclusion is concerned with both academic and social participation in mainstream schools, it is not easy to establish whether this participation requires full time attendance of students with special educational needs in general classrooms (Norwich, 2008). Advocates of the notion of *"part-time withdrawal"* (Norwich, 2008: 137) argue that time out of the general classroom for individualised support does not constitute segregation and it should not negate the necessity and effectiveness of inclusion (CSIE, 2002; Thomas & Vaughan, 2004). Warnock (2005) adds that part-time withdrawal is still inclusive, as it allows the students to learn and engage in the same curriculum as their peers. On the other hand, there is a claim towards the total inclusion of students with special educational needs in general mainstream schools, with researchers like Slee (2006) and Vlachou (1997) suggesting that academic performance of students with special educational needs is better when they are fully included in mainstream schools.

Recognising that the placement dilemma is still a debateable position, Avramidis and Norwich (2002) conclude that despite teachers being positive about inclusion and equal participation of all students in education, they still have reservations about the applicability of a *"total inclusion"* approach (Avramidis & Norwich, 2002: 142). They seem willing to include students with mild learning difficulties or physical/ sensory impairments but not students with severe and profound learning

difficulties. Interestingly, this position seems to be consistent across time and countries.

Elaborating further on this placement dilemma, Norwich (2007; 2008) was also concerned with the future of special schools. His concern related to students with severe and profound learning difficulties who might be disadvantaged by their placement in mainstream schools by having less access to specialist resources and services whilst exacerbating feelings of exclusion by their peers. His research indicates that there is a necessity for a multi-dimensional model allowing flexibility as to the placement of students with special educational needs, taking into consideration four dimensions, namely identification, placement, curriculum and level of governance.

Taking into consideration the above ongoing debate as to the various types of inclusion, Norwich (2008) proposed a continuum that encapsulates the variance of ways for implementing inclusion.

> *Most separate*
> *Full-time residential special school*
> *Full-time day special school*
> *Part-time special – part-time ordinary school*
> *Part time special unit/class – part-time ordinary class*
> *Full time in ordinary class with some withdrawal and some in-class support*
> *Full time in ordinary class*
> *Most included*
>
> (Norwich, 2008: 136)

Bringing this section to a close, inclusion, as we refer to it today, and it is an idea that I follow in my thesis, shifts the focus from deciding whether a student should be placed in special schools or in mainstream schools to a wider notion of eliminating the social and educational exclusion that many students with special educational needs experience (Cigman, 2007). I argue that consideration of factors within the school or as Ainscow (2005: 113) describes: *"the social learning processes within a given workplace that influence people's actions and, indeed, the*

thinking that informs these actions", seems necessary, highlighting the importance of school culture (including management and teacher development) in shaping inclusive practices. Furthermore, all interpretations of inclusive education and the conflicting ideas put forth, highlight the sensitivity of this concept that affects issues of justice, fairness, respect, individuality and personal experiences (Cigman, 2007; 2010). Drawing from the above discussion, I argue that respecting the individuality and diversity of students should be at the forefront of any education and teaching incentives adapting the school and education to the student, which is a belief I maintain throughout my thesis.

2.3.5.3 Obstacles impeding the implementation of effective inclusive practices

Despite the notion of inclusive education featuring highly in international political agendas and education reform proposals, schools have struggled to respond to the needs of all students and apply inclusive environments. In Cyprus, the main concerns are the social marginalisation and exclusion of students with any form of learning difficulties, even within mainstream schools, as well as responding to some of the difficulties confronted by teachers failing to develop inclusive practices (Angelides, 2004; Angelides et al., 2008). Similar concerns have been raised in international literature highlighting the need to transform the existing capacity of schools to accommodate all students as well as how to minimise marginalisation and exclusion of students (Ainscow, 1997; Booth & Ainscow, 1998; Clark et al., 1999). The European Commission in their 2010 report in respect of inclusive education, highlights that there are marked discrepancies amongst EU countries as to how they implement inclusive practices and their use of special schools, reflecting their general education systems and policies. Despite these discrepancies, there is a growing trend to reduce the number of special schools and increase the number of students with special educational needs in mainstream schools.

In addition, lack of teacher training, and the gap noted between the initial teacher training and continuous professional development programmes, are some of the main obstacles towards the implementation of effective inclusive practices (Florian, 2014; Forlin, 2010). Burbank and Kauchak (2003) stress that teachers attending continuous professional development seminars organised by national bodies, take up a passive role without active participation. Lack of training seems to be

particularly the case in Cyprus, whereby the Ministry of Education and Culture is promoting educational reform by requesting more inclusive environments, but this is not communicated across or implemented effectively in the schools that cannot make any decision on their own in any case, given that all funding and instructions come directly for the Ministry. Moreover, professional development seminars and activities in this area have not actively been promoted to in-service teachers in order for them to be educated further and implement change in their teaching to accommodate for more inclusive practices (Symeonidou & Phtiaka, 2014). Carefully interrogating the literature concerning the Cypriot education context, in respect of teacher training and continuous professional development programmes (a concept that is further discussed in chapter 4), I believe that research projects based on collaborative action research methodology, such as the one I have undertaken, have the potential to be regarded as a professional development initiative with a positive impact on the participating teachers, broadening their horizon in respect of implementing inclusive practices and individualised educational support for students with special educational needs.

Moreover, ineffective communication and lack of cooperation between classroom and special education teachers themselves affects the way inclusive practices are implemented. Specifically, insufficient training and guidance have resulted in some classroom teachers regarding special education teachers as their teaching assistants rather than their colleagues (Angelides, 2004). In addition, whilst not being the case for all teachers, students attending the withdrawal classroom are sometimes referred to by some teachers of general classrooms as "τα παιδιά της ένταξης" which directly translates to *'the students of inclusion'*. This approach, further highlights concerns about how teachers regard the notion of inclusive practices shaping their attitudes towards these students. This reflects international literature stipulating that teachers' actions and attitudes are shaped by a bell-curve form of thinking about ability and holding deterministic beliefs towards these students (Thomas & Loxley, 2001). As a consequence, this could have negative effects on how inclusive practices are implemented as well as leaving students with special educational needs vulnerable without the provision of additional educational support (Florian & Black-Hawkins, 2011; Hart et al., 2007; Thomas & Loxley, 2001). Teachers' attitudes, skills and pre-dispositional beliefs play an integral role in determining the

effectiveness of inclusion and inclusive educational practices (Berry, 2008; Buysse et al., 2001; Chrysostomou & Symeonidou, 2017). This claim is further discussed in chapter 4 and is examined against the third research question framing my study.

Having considered the concerns that may affect the implementation of inclusive practices, I argue that these practices should be regarded as multi-faced with their implementation rooted in the individual needs of the students. I believe that accepting that students have learning difficulties is accepting that all students are different and unique. Thus, providing an appropriate school setting and an individualised programme, adopting innovative teaching tools (such as the use of graphic organisers) and the practice of teachers enriching their inventory, according to the needs of the students, is a necessity in order to promote equality among all students. This acknowledgement is what constitutes the ideology for inclusion as a positive education experience, which is an ideology that my thesis embraces.

> *All children are unique, and therefore different. For equity and justice in education to be realised, the overall quality of schooling must be investigated and improved, through the meeting of human differences in the ordinary or mainstream classroom* (O'Hanlon, 2003: 16).

Having set the scene upon which my field work is undertaken, both in terms of situational context, that is withdrawal classrooms within mainstream primary schools as well as conceptual context, considering core terms such as students with reading difficulties and inclusive education and practices, I now revisit the three core research questions that my research sets to explore in-depth.

2.4 Revisiting my research questions in light of the contextual background of my study

Having provided the contextual background of my study in this chapter, I believe that the three core research questions I have devised (presented in the previous chapter), critically and wholesomely frame my exploration. Their formation is built upon the specific stage and situational context that I have presented in this chapter.

Furthermore, from what I have written in this chapter, it is evident that I am interested in exploring aspects of inclusion in the Cypriot setting. My investigation did not set out to change the current structure of the established practices in Cypriot primary schools, nor would have been possible for me to do so. My intention was not to generalise across different contexts or people. My work was based on a small-scale experiment in the use of a particular teaching tool within an education setting as detailed here. Thus, my research centres on a small aspect that is, the ways in which special education teachers experiment with innovation in teaching students with reading difficulties within withdrawal classrooms located in Cypriot mainstream primary schools. My focus is on a specific change process, namely the educative potential and use of graphic organisers (to be discussed in-depth in chapter 3) as an alternative and innovative teaching tool in a separate setting (withdrawal classrooms) for students with reading difficulties working on a one-to-one basis with a special education teacher. The flexibility of my methodological approach allows for a mutual exploration by both myself carrying a dual identity (researcher and special education teacher) as well as by the special education teachers participating as collaborators in my research.

2.5 Conclusion

With this chapter, my aim was to set out the contextual foundations upon which my study was built. I have documented the established education practices in Cyprus, in order to explain why I have focused on the specific setting of a withdrawal classroom within which to undertake my study. I have set out a brief overview of the linguistic context of my study and I have also provided my interpretation of the main concepts used throughout my thesis. Finally, I have explored how aspects of disability and inclusion are interpreted and how I chose to refer to them for the purposes of my thesis.

I argue that setting out the contextual backdrop of my research, was essential in order to provide an understanding as to how my research questions were formed and why I consider these important, having also accounted for my personal beliefs, background and world view (discussed in chapter 1) which have influenced my decision to focus on critically exploring how special education teachers experiment

with an innovative teaching tool within withdrawal classrooms, as a separate education setting.

I now turn to discuss the theoretical framework of my study, looking at existing literature into the use of graphic organisers in learning, as well as looking into the learning theory that lends support to the use of graphic organisers in learning.

Chapter 3: Theoretical Framing

3.1 Introduction

This chapter explores the theoretical framing of my research. The aim is to review and interrogate the learning theory that my research is built upon as well as the claims made in the existing literature in respect of the development and effectiveness of using graphic organisers in teaching. I have also sought to identify literature relating to the factors and conditions that affect their usefulness, such as the characteristics of students, of their teachers, of the learning material and of the graphic organisers themselves, and highlight potential gaps in this area.

In detail, at the beginning of the chapter, I discuss aspects of learning theory underpinning the development and use of graphic organisers as an innovative teaching tool. Following this, I elaborate on visual displays as a learning support. Thereafter, a discussion of the relevant literature on the use of graphic organisers follows, with specific reference to their characteristics and effectiveness in relation to learning, as well as learning effects for students with reading difficulties in particular. Lastly, debates on the predominant conditions of using graphic organisers are discussed.

3.2 Theories of Learning

My thesis explores the usefulness of graphic organisers in supporting the reading development of primary aged students, who experience some difficulties in this area, so that they are withdrawn from their mainstream classroom in order to help them "close the gap" with their peers. When teachers select a teaching tool over another, the decision is frequently justified in terms of its capacity to promote effective learning.

In order to set the stage for exploring the thesis's research questions and frame my research into the effectiveness of graphic organisers as a teaching aid in supporting students with reading difficulties, I feel necessary to draw on some aspects of contemporary learning theory that give cogency to their use in the classroom. I appreciate that there is a vast literature on learning theory which I am not able to

fully explicate here. However, some current work argues that the key aspects that teachers need to appreciate are cognitive acquisition mechanics and an appreciation of the social embeddedness of learning, referring to the interaction of the learner with their environment (Illeris, 2017). Therefore, aligning with Illeris (2017), I argue that both elements of learning (the acquisition mechanics and the interaction between learning and environment) are important, and they need to be active for learning to occur.

The development of graphic organisers as an innovative teaching tool can be justified by looking at both aspects of contemporary learning theory. Therefore, in the first part of the following section, I present an overview of two theories of learning that focus on the cognitive acquisition mechanics that underpin the foundation of the development of graphic organisers, being schema theory and cognitive load theory. I appreciate that there are many learning theories that focus on cognitive acquisition mechanics, however, I have selected these two as I believe they are directly related to the development and use of graphic organisers. In the second part of this section, I discuss the claim that learning is a social and interactive event and relate this to my context and focus in this study.

3.2.1 The two cognitive acquisition theories

To evaluate how the use of graphic organisers can assist students with reading difficulties and promote meaningful learning, one of the fundamental aims of education, I explore two cognitive acquisition mechanics theories: schema theory and cognitive load theory. These theories are bound to the use of graphic organisers as learning tool, promoting learning and overall meaning making.

According to schema theory, comprehension depends on the level of correspondence between the reader's schemata (existing knowledge structures) and the information in a text (Al-Issa, 2006). Therefore, I argue that teachers in their effort to select a teaching method and tool to use when teaching students with reading difficulties, need to have an overall understanding of their students' schemata, as well as how the information in a text can be simplified in order to reduce any cognitive load it may bear for their students.

According to Bartlett, *"schema refers to an active organisation of past reactions or past experience"* (Bartlett, 1932: 201) emphasising the constructive nature of remembering and learning. A schema (or schemata in plural) is an abstract knowledge structure comprising the relationships and links amongst various categories of specific information determined and created via personal experiences. In brief, schemata are an organised part of memory and their combination sums up existing knowledge stored in the long-term memory. As Collins and Quillian (1969) argue, knowledge is structured in semantic networks forming the basis of personal prior knowledge. It resembles a spider web of stored knowledge and information connected with each other with nodes and links describing the relationships amongst them. Schemata are dynamic structures that expand by assimilating and accommodating new information into existing schemata to form new schemata. Schemata affect the interpretation of new information and experiences as they will influence how unfamiliar information is interpreted (Winn & Snyder, 1996).

> *The world as we experience it and understand it is not merely a function of the objective events in the world, of the physical stimuli that reach us. Instead, the world as we experience it represents the joint contributions of information from the world and information we supply* (Schwartz & Reisberg,1991: 330).

Emphasising the importance of prior knowledge in the process of acquiring new knowledge, Ausubel (1963; 1968) added another dimension to how meaningful learning is achieved. His fundamental idea was that learning was achieved when the new information was successfully assimilated and subsumed into the existing cognitive structure of the learner (assimilation theory). This cognitive theory of learning allows for progressive differentiation of existing schemata by the learner when they build upon their prior knowledge, as well as integrative reconciliation of concepts, when the learner elaborates on differentiating concepts learnt earlier with alternative examples in order to clarify the new information and also amend any misconceptions. This anchorage system allows for meaningful learning to occur as well as allowing the assimilation of the new knowledge and information within the existing knowledge units, or as described above, schemata.

However, for the anchorage model to be successful, the learner needs to be aware of and select the relevant schemata and personal prior knowledge in order to understand the new information that would then be incorporated. When the relevant schemata are not obvious to the learner or when the learner has a specific difficulty in making this connection, then they cannot firmly grasp, comprehend and retain new information and knowledge. In terms of reading, information stored in schemata include content schemata (prior knowledge of the topic), formal schemata (knowledge of the text structure) and language schemata (vocabulary knowledge) (Al-Issa, 2006). Brown (2001) adds that during reading, the meaning attributed to text is also formed by the context (emotional and cultural) that the reader brings into the activity through their schemata.

> *If I had to reduce all of the educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly* (Ausubel, 1963: epigraph).

Ausubel (1963) introduced and recommended the use of advance organisers (a form of graphic organisers) to alleviate any difficulty with selecting appropriate prior knowledge to support reading. He described advance organisers as a written representation provided prior to the reading activity, to act as a cognitive bridge between what the reader already knows and the new information of a text. He suggested that prior to any instruction, an advance organiser is a tool that can help ascertain what the learner already knows and therefore build on this knowledge leading to more meaningful learning.

Ausubel (1963) considered the cognitive structure to be hierarchical with generic and abstract concepts residing on the higher levels and more specific concepts subsumed under these. And this is the point where advanced organisers can assist; by making the general concepts and how they interrelate more explicit, prompting the learner to incorporate and assimilate new knowledge, linking it in the existing schemata formed by their prior knowledge. In addition, the argument that

knowledge can be schematically represented in a hierarchical format, justifies the development of graphic organisers as visual displays built with the same hierarchy of information.

Returning now to the relevance and interaction of schemata, with the information contained in a text and how this can affect the cognitive load of a student, I want to explore cognitive load theory. My thesis is built upon the understanding that students with reading difficulties struggle to comprehend and assimilate new information, thus teachers should be in a position to select innovative teaching methods and tools that minimise the cognitive load of their students, making their learning process easier.

Cognitive load theory is based on the general principle that the working memory has a maximum capacity of information that it can process at any given time and meaningful learning occurs so long as that capacity is not exceeded (Sweller, 1999; 2005). Working memory procedures can be interrupted by environmental distractions (such as someone addressing the learner during the learning process or an unrelated thought) or a high load of information received simultaneously and engagement in a demanding task (Gathercole & Packiam-Alloway, 2008). The limitations of working memory are set by the extent of the learner's prior knowledge and the types of existing schemata they possess (Cooper, 1998), with each individual having a working memory capacity that is personal to them (Gathercole & Packiam-Alloway, 2008). According to Gathercole and Packiam-Alloway (2008) the working memory capacity gradually increases with age until the teenage years when adult levels are reached, being double those of a four-year-old child. The number of elements or pieces of information that the learner attends to at any given time (the cognitive load) depends on whether the learner is novice or expert; a novice learner will not be able to process the same number of elements as the expert learner who possesses more schemata (Cooper, 1998).

It is frequently argued that cognitive load can be explored using the concept of element interactivity contained in learning material as a referent point (Cooper, 1998; Paas et al., 2003; Stull & Mayer, 2007; Sweller et al., 1998). To start with, intrinsic cognitive load refers to the internal characteristics of the material to be

learned. In relation to reading, these consist of the text characteristics such as syntax, vocabulary and grammar. When the material is of a high degree of difficulty with many elements (high element interactivity) then the burden on the working memory may become heavier, thus making the process of comprehending more difficult because working memory has to pull out a large number of resources in an effort to analyse the individual characteristics of the text. When undertaking intellectual work, such as reading, the reader will require a certain amount of resources from their cognitive capacity. However, when individual text elements need extra effort to comprehend, then this places a demand on the cognitive capacity, adding to the cognitive load (Cooper, 1998; Paas et al., 2003; Stull & Mayer, 2007; Sweller et al., 1998). Ineffective cognitive load refers to the way that material is presented to the learners that may sometimes strain information processing. This type of cognitive load emphasises that instructional procedures and methodology should be designed in a way that focus on the textual concepts and not on other external activities associated with the text in order to maximise the amount of working memory resources needed for schema acquisition and knowledge learning (Cooper, 1998; Paas et al., 2003; Stull & Mayer, 2007; Sweller et al., 1998). Lastly, effective cognitive load refers to tools used to enhance learning through maximising the resources devoted to learning by removing marginal activities such as searching that can be a factor in producing cognitive load. For learning to occur, all these types of cognitive load added together should not exceed the working memory resources that are available (Copper, 1998; Paas et al., 2003; Stull & Mayer, 2007; Sweller et al., 1998).

As Paas et al. (2003) suggest, research in cognitive load theory claims that simple, goal specific and multimodal material, such as visual displays, can be effective in reducing the cognitive load of the learner. In addition, cognitive processes that are considered to be appropriate for learner engagement include attending to relevant information, organising this into a coherent mental structure and finally integrating the incoming information with prior existing knowledge (Stull & Mayer, 2007).

Drawing on a review of relevant literature in schema theory and cognitive load theory, I argue that the use of graphic organisers as a teaching tool has the potential to effectively respond to the arguments posed by these cognitive acquisition

mechanics. This is due to the fact that their design is hierarchical following the design of schemata (mental structure comprising prior knowledge), whereas their visual depiction and multimodality can be effective in reducing students' cognitive load.

3.2.2 Learning theory as socially embedded

Another aspect of learning theory that I have selected in order to frame my research into the usefulness of graphic organisers in supporting students with reading difficulties, is the claim that effective and meaningful learning, also needs to be socially embedded. This is in acknowledgement of the need for a more holistic interpretation of learning whereby students are trained and educated to be able to critically and productively read, write, think and express themselves (National Research Council, 2000). This is aligned with the argument by Anderson et al. (1996) that effective learning takes place when students become self-sufficient, self-sustained and independent lifelong learners able to find information and productively use it, rather than simply aiming at developing skills to remember and repeat information.

> *Effective learners have gained understanding of the individual and social process necessary to learn how to learn. They have acquired a range of strategies and can monitor and review their learning to gauge the effectiveness of these strategies* (Watkins et al., 2007: 19).

Contemporary learning theory aims at developing expert, usable and transferable knowledge that is inter-linked and organised (Hattie, 2009). When the learner understands information, how it is found and used as well as the inter-relationship between concepts, then they are more able to transfer their knowledge and skills to other contexts and situations. Therefore, the necessity for developing learning strategies and tools that students can add to their arsenal, allowing active, critical and productive learning, becomes of paramount importance (Elmore, 1996; Hattie, 2009).

Discussing the process of learning through this lens, entails an understanding that learning is a personal journey, where the aim is for the students to become their

own teachers in charge of their own meaning-making (Hattie, 2009). Wittrock (1990) characterises the mind as actively constructing interpretations and drawing inferences from information to make meaning, rather than passively accepting information. He argues that meaning-making occurs when pieces of information are effectively and meaningfully woven together or when the information interacts with the learner's prior knowledge in order to create new knowledge (as argued also by Ausubel, 1963; 2000). Learners actively analyse new information, making relevant and coherent mental representations linking their new knowledge with existing knowledge (Mayer, 2002). As Novak (1993) suggests, individuals are engaged in a constant and interactive process of construction and reconstruction of personal knowledge giving meaning to objects and events they encounter in life.

However, as Elmore et al. (1996) highlight, facilitating this activity in the classroom can be challenging. Teachers have the task of creating environments that promote active and independent learning, assisting students to take control of their own learning. The National Research Council (2000) suggests that there are three core learning principles involved in this process. First, an understanding that students come to the classroom with pre-defined conceptions and prior knowledge, as detailed previously (Ausubel, 1963). For teachers, understanding the interpretations and perceptions of reality that students have as well as their less complete understanding and misconceptions, can be a starting point for new instruction and feedback, assisting students to build new knowledge that they understand. Second, for students to be competent and expert learners, knowledge should be organised in ways that facilitate swift retrieval when necessary as well as application and transfer to different contexts.

Finally, active learning is synonymous with promoting metacognition, focusing on developing the abilities and skills for students to predict and assess their own performance, as well as monitor their learning, understanding and sense-making (Watkins et al., 2007). Metacognition refers to learning about learning, planning, monitoring, correcting and transferring knowledge (Flavell, 1976). Hatano and Inagaki (1986) have characterised this approach as adaptive expertise. It includes knowledge about oneself (Ewoldt et al., 1992) and the thought processes relating to learning and learning actions (Weinert, 1987). Learners who have developed

metacognitive strategies have the ability to acquire and understand the nature of concepts and how these are formed as well as having an understanding of knowledge creation (Novak, 2002). Metacognition necessitates that the learner is able to assess the learning task at hand, based on an understanding of their personal cognitive abilities and skills as well as the need to control and measure their learning using specific mechanisms such as self-assessment (Baker & Cerro, 2000). Cognitive strategies assist the learner to successfully analyse, comprehend and integrate new knowledge achieving the learning aim, whilst metacognitive strategies assist the learner to monitor and adjust their performance during the learning process itself (Brown, 1980; Flavell, 1976).

During the reading process, students become active learners using such strategies (Pandeliadu, 2000). Skilled readers are able to predict what to expect whilst reading a text, have an understanding as to why they are reading a text and they are able to ask questions to successfully abstract meaning from the text (Yuill & Oakhill, 1991). In addition, they have the ability to monitor and assess their learning strategies, adjusting their use according to the reading material (Duke & Pearson, 2002), rectifying any errors and misconceptions they may hold (Novak, 2002).

Bringing all arguments included in section 3.2 together, I have concentrated on some key aspects of contemporary learning theory that are useful in justifying the use of graphic organisers in supporting the reading development of primary-aged students who experience difficulties in this area. Briefly, I have argued that there are some *"big picture ideas"* (Watkins, et al., 2007: 21) involved in supporting effective learning. One of them is the need to recognise what students can and cannot do – an active appreciation of the schemata they have and are forming (Ausubel, 1963). There is also a need to involve a range of strategies (visual and verbal) as well as ensure that the cognitive load is appropriate for the students' learning. Overall, I believe that acknowledging the social embeddedness of learning has opened the door for innovation to enter into contemporary classrooms. Opportunities for new, innovative and interactive teaching tools are now promoted and seen as an evolutionary step away from the traditional. One such innovative teaching tool can be the use of visual displays, and especially graphic organisers, which will be discussed in-depth in the following section.

3.3 Visual Displays

"A picture is worth a thousand words". This proverb suggests the value of using visual displays to convey information and knowledge. Information is regarded as raw data, whilst knowledge is a human creation generated through meaning making and interpretation of information (Lim et al., 2009). Visual displays and representations (including pictures, diagrams and graphs) stand as referents to information and play a significant role in everyday life in an effort to convey a message (Lim et al., 2009). Visual displays provide for impactful, concise and clear communication of a message (Dansereau & Simpson, 2009).

Winn (1991) argues that the advantage of visual displays is that they present information in a more efficient way, alleviating the complexity that traditional forms of language (spoken or written) sometimes bear. Moreover, visual displays might not necessitate complex mental transformations that may overload working memory, but rely on automatic perceptual processes for their interpretation (Larkin & Simon, 1987). Larkin and Simon (1987) argue that non-linear diagrammatic displays exceed the computational efficiency of linear sentential displays due to perceptual enhancement, referring to effective communication of concepts and the relations among them by placing them relative to each other in two-dimensional displays. This is also known as the visual argument, proposed by Waller (1981), and supported by Winn (1990). Waller argues that due to the perceptual enhancement the learner encodes concepts and relations retrieved from a non-linear display faster and easier allowing for later recall and retrieval.

Displays include but are not limited to outlines, summaries, lists, maps, pictures, advance organisers, graphic organisers and knowledge maps (Darsh & Gersten, 1986; Kulhavy et al., 1994; Robinson & Molina, 2002). Focusing specifically on the use of pictures, the most common type of visual displays utilised, Levin and Mayer (1993) argue that pictures direct readers' attention to important parts of the text; they make the text compact, further justifying the use of the proverb: "A picture is worth a thousand words"; concrete, clarifying difficult text content; coherent and comprehensible simplifying unfamiliar text; they activate and enrich

the learner's prior knowledge; and make the text codable. These principles have been used by researchers to support the use of other types of visual displays, such as graphic organisers (Carney & Levin, 2002; Schnotz, 2005). Moreover, the unique properties of visual displays along with the referential connections between text and image, illustrate the important role of graphic displays in representing and conveying text meaning, that will be explored in the next section.

3.4 Graphic Organisers

My thesis focuses on graphic displays. In order to discuss their reported effectiveness for learning (in the section that follows), I feel there is a need to initially explore the design and characteristics of graphic displays and the various ways these can be illustrated. This is not intended to be a comprehensive account of all graphic displays that exist; rather it is an attempt to chart and describe some of the ways these can be designed and arranged.

Winn (1987) suggests that if realistic pictures lie at one end of an information continuum and words at the other, the family of graphic displays is located at a midpoint. The family of graphic displays includes organisers, graphs, diagrams and charts. These are characterised by a spatial arrangement of their components (Winn, 1990). Their flexibility in design and combination of their components are governed by "*conventions of coherence"* (Salomon, 1979: 30) rather than the *"rules of prescription"* (Salomon, 1979: 30) that spoken and written languages follow.

The most frequently used graphic display group is the family of graphic organisers describing visual knowledge representations (Nesbit & Adesope, 2006), more generally defined as *"node-link maps"* (Wallace, et al., 1998: 5). Graphic organisers consist of nodes which are boxes containing concepts and ideas as well as links connecting the nodes to present their relationship by means of spatial position (Alvermann, 1981; Winn, 1991). Graphic organisers convert traditional text into two-dimensional structured maps that can be used as a supplement to or as a substitute for text, in order to give a visual representation of knowledge. They are characterised by an internal tree structure identifying the superordinate ideas,

the subordinate ideas as well as the explicit relationship between them (Guastello et al., 2000). According to O'Donnell et al. (2002), the macrostructure of a text is made more salient by graphic organisers. The relationships amongst facts, concepts and propositions are presented explicitly (Gajria et al., 2007; Hughes et al., 2003; Kim et al., 2004). For an example, see appendix 15 that includes a graphic organiser prepared by one of my participants, whereby this relationship is illustrated.

In an effort to link all variances of graphic organisers, it may be helpful to note the commonalities in their application and appearance. Information split in words or statements is presented graphically with a visuospatial arrangement forming a diagram with the main ideas and subordinate concepts linked together. For a visual representation technique to be named as a graphic organiser it should have the intention of illustrating spatial arrangements of words and statements to give a clear and explicit picture of the conceptual organisation of any given text (Stull & Mayer, 2007; Wallace et al., 1998). All graphic organisers are based on similar principles (such as similarity, proximity, spatial arrangement) and methods of representation. As previously highlighted, their main characteristic is to transform a linear structured text into a nonlinear graphic representation (Chang et al., 2002).

For the purposes of my thesis, I follow the taxonomy proposed by Dexter and Hughes (2011) who argue that there are five main types of graphic organises as follows:

1) Cognitive Maps: The technique of using explicit spatial arrangements with lines linking various boxes of concepts to illustrate the text structure and highlight the key relationships amongst concepts (Darch & Eaves, 1996). Also known as information maps, these include representations of theoretical models and knowledge structures, different shapes and colour, and schematic hierarchical structures to illustrate interrelationships and patterns (Dansereau & Simpson 2009). Some more commonly known sub-categories of cognitive maps are concept maps (Novak & Gowin, 1984) and knowledge maps (O'Donnell et al., 2002).
2) Semantic Maps: This technique is a heuristic method enabling the categorisation and listing of information retrieved from a text including the main ideas and the

supporting details (Bos & Anders, 1990). Main ideas are placed in a prominent position in distinctive nodes with the supporting details listed afterwards.

3) Semantic Feature Analysis: This technique is similar to the semantic mapping technique described above with the difference being that this technique uses a relationship matrix in the form of a table. The main concepts are placed on the top horizontal line and the subordinate concepts on the vertical side line. Predictions are then made in order to confirm or reject the relationships among the concepts using various scales (Bos & Anders, 1992).
4) Syntactic/Semantic Feature Analysis: This technique is almost the same as the above technique with the difference being the replacement of words by blank spaces where the reader has to insert new vocabulary retrieved from the table (Bos & Anders, 1990).
5) Visual Aids: This category represents various techniques that illustrate the relationships between concepts according to their location in the organiser and their shape depends on the nature of the concepts included. For example, if the concepts are of a temporal nature then the organiser will take the form of a timeline, whereas if the concepts are of a comparative nature the organiser will take the form of a Venn diagram (Hughes et al., 2003)

(Paraphrased from Dexter & Hughes, 2011: 52-54).

Having explored the design and application of graphic organisers, I now turn to consider their usefulness in supporting learning and in assisting students with reading difficulties in particular, by exploring the existing literature in this field.

3.4.1 The role and use of graphic organisers in learning

Even though learners are surrounded by huge amounts of information during the learning process, this does not automatically guarantee knowledge acquisition (Rozak, 1986). Bearing in mind the distinction between information and knowledge discussed earlier in section 3.3, knowledge retention is the contextual creation of meaning which consists of a fluid mix of socially embedded personal experience and the incorporation of new experiences and information in the existing schematic cognitive structure of the learner (Lim et al., 2009). The essence of this generative learning theory (Wittrock, 1990) is that the learner is active and constructs meaning based on their own interpretations and inferences from information. Watkins et al.

(2007) argue that meaningful learning is facilitated by incorporating new knowledge into the existing knowledge structure by learners themselves. In light of this argument, it seems that graphic organisers have the potential for supporting meaningful learning. This justification is also based on the claim that graphical representations can communicate information in a clearer and more effective way than text due to their visuospatial characteristics (Tzeng, 2010).

Based on the influence of visual representation and assimilation theory (Ausubel, 1968) graphic organisers can be a powerful tool that *"taps into a learner's cognitive structure"* (Leake et al, 2003: 24). By ascertaining and externalising prior knowledge, new knowledge can be incorporated into the existing cognitive structure of the learner resulting in meaningful learning (Canas et al., 2005). This is done by exploiting the visual memory of learners, thus speeding up the retrieval of prior knowledge and the economic and meaningful storage of new knowledge (Tzeng, 2010). Moreover, graphic organisers have the potential to be used to represent prior knowledge held by the learner and to depict the relations or even some of the misconceptions, such as false links among key concepts that they may have established (Novak, 1998). In other words, graphic organisers can be characterised as a benchmark from which learners reflect and critically acknowledge and assess their prior knowledge. This procedure has the potential of being motivational for the learner and encourages them to have an active involvement in the learning process in order to be able to expand, relate and assimilate new knowledge into their existing schematic cognitive structure (Novak, 1998). It has also been argued that graphic organisers facilitate a complementary relationship between cognitive and perceptual processing (Larkin & Simon, 1987), whilst they are likely to involve less extraneous cognitive load than text (Shaw et al., 2012). Basing the potential effectiveness of graphic organisers on computational efficiency, it is argued that students may learn more from spatial displays, such as graphic organisers rather than from linear displays, such as texts, because concept relations are encoded quicker and easier (Robinson et al., 1999).

Graphic organisers have also been proposed as a widely applicable metacognitive strategy (Merchie & Van Keer, 2016). The use of graphic organisers assists the learner to focus and understand how knowledge is organised, whilst maintaining a

productive and contemporary learning climate focusing on assessing information, judging their own progress and achievement towards the learning goal (Merchie & Van Keer, 2016). This idea is linked with the notions of self-regulation and self-efficacy. Self-regulation refers to the learner's ability to be an active participant in their own learning, metacognitively, motivationally and behaviourally (Zimmerman, 1986). Self-efficacy is one of the main elements of Bandura's (1986) social cognitive theory, referring to the personal beliefs and understanding of one's ability and capabilities to learn, affecting the effort, choice of strategies and ultimately achievement. As Schunk (1994) highlights, acknowledging that progress is made by the learner themselves provides for maintenance of motivation, satisfaction and feelings of accomplishment.

3.4.2 Applicability of graphic organisers

The application of graphic organisers has been advocated for their effectiveness in promoting reading comprehension (Alvermann, 1981; DiCecco & Gleason, 2002; Moore & Readence, 1984), to help students with special educational needs (Horton et al., 1990; Kim et al., 2004), to assess the learner's quality of learning (Hay & Kinchin, 2008; Ruiz-Primo & Shavelson, 1996), and to assess learning of scientific subjects (Martinez et al., 2013; Novak & Musonda, 1991). The exploration of the applicability of graphic organisers in education has been the focus of research with all age groups starting from kindergarten (Cassata-Widera, 2008), throughout all education grades from Year 1 to 12 (Alvermann, 1981; Chang et al., 2002; Lenz et al., 1987) but also for university students (Chimielewski & Dansereau, 1998; Hay et al., 2008; Tenny, 1992).

Existing research has used graphic organisers in various ways, such as reading adjuncts to promote comprehension (DiCecco & Gleason, 2002; McCrudden et al., 2009; Vekiri, 2002), to provide a scaffold for cognitive operations (Hall et al., 1992), to provide multiple retrieval paths to access knowledge (O'Donnell, 1993), as aids for mathematic problem solving (Ives & Hoy, 2003), as note-taking aids (Katayama & Crooks, 2003), as a method to assess understanding of learners (Kinchin & Hay, 2000; Liu, 2004; Ruiz-Primo & Shavelson, 1996). Moreover, they have been used to support metacognitive learning (Novak, 1990, 2002), to facilitate problem-based learning and reasoning (Lee & Nelson, 2005), and to analyse and

synthesise knowledge (Medland, 2007).

Armbruster et al. (1991) suggest that one way of organising information from a text is to use the top-level text structure, effectively referring to the author's organisation of a text. However, it has been acknowledged that skilled readers have greater awareness and have the ability to use the top-level structure of a text, enabling them to create a coherent mental organisation of information, whilst less skilled readers have more difficulties in doing this (McGee, 1982; Meyer et al., 1980; Taylor, 1985). Graphic organisers have been promoted as a method to foster the ability to abstract and adopt the top-level structure of a text (Armbruster et al., 1987; Berkowitz, 1986; Boothby & Alvermann, 1984). However, circumstances have been highlighted where graphic organisers do not necessarily lead to better learning. Stull and Mayer (2007) found that overuse of graphic organisers (more than two per paragraph of a biology text) by college students did not result in improved learning.

When considering the effects of graphic organisers on learning it is always helpful to regard this in terms of learning outcomes. In an effort to outline the effect of graphic organisers, I now explore some key studies that I have organised under the headings of student attainment and achievement and reading comprehension and recall. These studies support my argument that graphic organisers can help students who experience difficulties with reading, to make progress. Moreover, this section also specifically theoretically substantiates one of my core research questions, being: What is the impact of using graphic organisers on student learning and teacher development.

3.4.3 Graphic organisers, student attainment and achievement

Academic demands extend as students progress with their education, and meet increasingly complex expository material, abstract concepts requiring higher-order processing and comprehension skills as well as more didactic lectures (Dexter & Hughes, 2011; Merchie & Van Keer, 2016). However, whilst skilled readers are adept at the three cognitive processes of selecting, organising and integrating information (required for meaningful learning), novice readers may experience difficulties in engaging in these processes when attempting to learn from a text

(Armbruster et al., 1991).

The performance of students is often measured using various forms of assessment, such as observation, interviews or other standardised tests, such as written or oral recall of ideas and multiple choice questions. Overall, scholars tend to agree that using graphic organisers can improve students' overall performance in these forms of assessment (Gardill & Jitendra, 1999; Guastello et. al., 2000; O'Donnell et al., 2002; Stull & Mayer, 2007).

Various meta-analyses and research studies have explored the effectiveness of graphic organisers in terms of student attainment and achievement (Chiou, 2008; Dexter & Hughes, 2011; Gajria et al., 2007; Kim et al., 2004; Nesbit & Adesope, 2006). The overall position distilled from these studies is that the results drawn from using graphic organisers seem to be mainly beneficial across all educational levels, subject areas and settings. Moreover, they seem to improve overall performance on transfer tasks. Finally, their use seems to be motivational for students and has a positive effect on minimising stress. However, there are some implications and issues from this body of research that need further consideration. To start with, the studies cannot draw definitive conclusions as the sample sizes used were varied, and these reviews were based only on factual comprehension measures with no effect analysis by type of element, such as subject area, age groups and types of graphic organisers (Kim et al., 2004).

In addition, as Dexter and Hughes (2011) acknowledge, there are methodological limitations in the meta-analyses as well. First, there may be an effect from *"publication bias"* (Dexter & Hughes, 2011: 68) where only research with positive outcomes is getting published thus eliminating research that may indicate an adverse effect of graphic organisers on student attainment and achievement. Second, most of the teaching material used during interventions in these studies was created by the researchers. Effectively, no research projects based on non-interventional designs, whereby teaching material was designed by teachers themselves, were included. Referring back to my research, this is one of the limitations that I wished to address by exploring the use of graphic organisers with teaching materials designed by the classroom teachers themselves rather than the

incoming researcher. This is based on my belief that the classroom teachers are in a better position to evaluate the applicability of the material to teach their students and the adjustments needed to the material to suit their students' needs and raise their attainment. However, the use of graphic organisers does map onto key aspects of contemporary learning theory, thus may offer much in the way of supporting learning and, in turn, extending student attainment, specifically in the area of reading.

3.4.4 Graphic organisers, reading comprehension and recall

Competent reading and reading comprehension depend upon the ability to construct and retain appropriate meaning (Idol & Croll, 1987). This ability is influenced by two variables: reader-related and text-related. The first variable depends on understanding how readers make meanings from what they read whilst the second variable refers to the underlying structure of a text (Idol & Croll, 1987). Referring back to schema theory discussed earlier, it is argued that once the relevant schemata are retrieved, the reader makes the appropriate inferences and the text is made more meaningful. One way of assisting the reader to be aware of the relationship between their schemata and the new information in a text, is to organise the text using a graphic organiser, thus accelerating reading comprehension and recall.

A common problem that emerges in all levels of schooling is the difficulty faced by students when remembering and recalling what they have read in a text or content area textbook. By using graphic organisers, teachers aim to facilitate comprehension by visually illustrating the key terms and the relationships among them (Griffin et al., 1991). Graphic organisers have the potential to aid students organise, link and integrate information from an expository text (Alvermann, 1981) and build visual aids of main ideas from a narrative text (Hall et al., 2005).

Bearing in mind the distinctive characteristics of expository and narrative text and their structure (Mosenthal, 1994), graphic organisers have been considered to facilitate comprehension of both types of text. Gersten et al. (2001) argue that knowledge of text structures assists students in asking relevant questions in an effort to understand a text. Narrative texts (stories) have a consistent structure with similar features denoting the main elements, such as characters, events, plot,

resolution (Gordon & Braun, 1983) and knowledge of this story grammar assists students when making assumptions about what information is likely to be the most relevant for comprehension (Gersten et al., 2001). Expository texts (content area textbooks) have a number of organisational structures that focus on a logical organisation of main concepts, with superordinate and subordinate ideas linked together, resembling a tree structure (Meyer, 1975). Knowledge of expository text structure assists students organise the text as they read and have a pre-determined plan of action aiding retelling (Meyer et al., 1980).

Graphic organisers can allow for enhanced and effective comprehension and cognitive processing of information that is more difficult to comprehend through the traditional spoken and written language (Dansereau & Simpson, 2009), as they help students overcome the demands of a text which has a linear format (Shaw et al., 2012). The use of graphic organisers for reading comprehension has been argued to affect two elements: deep processing of the text to identify the text structure, for example whether it is a cause and effect type, and second to identify the respective concepts and their relationships (Ponce & Mayer, 2014). The effectiveness seems to be larger when students receive scaffolded practice and training in the use of graphic organisers (Ponce et al., 2012).

Graphic organisers are also considered to be effective where the conceptual relationships follow a hierarchical structure (Novak, 1998).

> *Because meaningful learning proceeds most easily when new concepts or concept meanings are subsumed under broader, more inclusive concepts, concept maps should be hierarchical; that is the more general, more inclusive concepts arranged below them* (Novak & Gowin, 1984: 15).

However, this argument is not accepted by all scholars in the field and Hibberd et al. (2002) and Ruiz-Primo and Shavelson (1996) have discussed the effectiveness of specific types of structures such as spider maps, networks and chains that could be closer to the schematic structure of prior knowledge embedded in the long-term memory. In addition, Safayeni et al. (2005) have argued that when a text consists of concepts that have static relationships then a hierarchical structure is more

appropriate but when there are concepts with functional relationships a cyclic structure is more appropriate. This disagreement among scholars leads to the conclusion that the structure of the graphic organiser should be content-dependent with the aim of giving a holistic and simple overview of information that facilitates the incorporation of new knowledge into the existing cognitive structure. Moreover, some research also suggests that using graphic organisers could have adverse effects on reading as they may narrow the way readers process text (Tzeng, 2010). This is because they may teach the student to focus on the information included in the graphic organiser neglecting any information that is not included, while limiting the ability of the student to fit the new knowledge within their personal knowledge structure (Guri-Rosenblit, 1989; Lee & Nelson, 2005).

Another area of student performance that has been explored in relation to the use of graphic organisers is their effect on oral or written recall of main ideas from a text. Students studying with graphic organisers seem to recall more main ideas of text (macrostructure), however, this is not always the case with the details of a text (microstructure) (Hall, 2004). Furthermore, older research by Berkowitz (1986) and Armbruster and Anderson (1980) highlighted mixed results. Both studies concluded that even though there was an effect on free oral recall of students who had been instructed to use graphic organisers after they had read a text, their learning outcomes did not vary greatly from the control group. Berkowitz (1986) examined the effect that the degree of expertise of students in using graphic organisers had on their free oral recall performance. The results indicated that when the degree of expertise was taken into account, a greater effect on free oral recall was noticeable, but when expertise was not taken into account then the recall was not facilitated in any greater degree than the control group. Turning to the effect of graphic organisers on written recall of main ideas, two studies by Alvermann and Boothby (1983; 1986) as well as McCrudden et al. (2009) conclude that the effects varied among the students participating and even though there was evidence of a positive effect to some degree it was not enough to claim that graphic organisers had made a significant contribution overall. However, over time, the use of graphic organisers has developed and has been refined to be able to respond better to classroom and students' requirements and it may be that this type of positive effectiveness can now be verified.

In conclusion, graphic organisers seem to improve the factual comprehension of ideas as well as inference comprehension, as indicated by the meta-analyses mentioned above (Dexter & Hughes, 2011; Dexter et al., 2011; Nesbit & Adesope, 2006) but have mixed results depending on other variables when exploring their effect on recall. Overall, they seem to be an effective organisational strategy for complex learning tasks such as text comprehension and vocabulary comprehension allowing students to perceive the concepts as interrelated and to engage in inferencing about these relationships.

3.4.5 Effectiveness of graphic organisers on reading performance of students with reading difficulties

Many students who are referred for special education experience difficulty in reading (Dexter & Hughes, 2011) and may have some problems with inferential thinking that is needed for higher-level cognitive task comprehension (Davis & McPherson, 1989). Specifically, students with reading difficulties can also experience difficulties with strategic writing, and the quality and length of their essays (Graham & Harris, 2009). They also seem to underperform when compared with their classroom peers (Ciullo & Reutebuch, 2013). Finally, they struggle with comparing textual information, abstracting important information from a text, integrating new knowledge within their existing knowledge structure as well as differentiating between main ideas and supporting details (Ciullo & Reutebuch, 2013).

As students progress in school, reading demands become more complex and students are required to study more reading material to gain and understand information, instead of focusing on learning how to read. Moreover, students with reading difficulties face significant obstacles in reading comprehension of both narrative and expository texts that are compounded with features such as complex syntactical structures and text patterns, heavy information loads with new and unfamiliar concepts (Armbruster, 1984; Swanson et al., 2015) and with limited links to personal experience and prior knowledge (Guastello et al., 2000). Increased obstacles in expository texts can be caused by unfamiliar, technical and esoteric vocabulary and poor text organisation and text patterns that emphasise learning

content (Kim et al., 2004). For narrative text, obstacles can be due to the scripturally implicit stories requiring more background knowledge (Gardill & Jitendra, 1999).

Visual representation of information using graphic organisers that are seen as content enhancements and adaptive strategies (Ciullo & Rutebuch, 2013), for both narrative as well as expository reading material seem to be effective in facilitating a better performance by students with reading difficulties. A systematic review of 21 group design intervention studies, conducted in 2004 by Kim et al., demonstrates an overall positive effect of graphic organisers on reading comprehension for students with reading difficulties. The findings suggest that graphic organisers provide scaffolding for these students to organise their knowledge of one subject, whilst displaying the most significant ideas from a text in an explicit and visual way thereby improving comprehension and recall. All studies included in the analysis by Kim et al. (2004) had a control group giving the results greater cogency. However, it is important to note that the duration of the interventions in 19 of the studies reviewed, was between 1 week and 3 weeks, resulting in a range of 2 to 12 sessions. The other two studies included an intervention of 12 to 16 weeks but with unreported total number of sessions. The 21 studies included a total of 848 students (an average number of 25 students per study). Therefore, careful consideration should be given to the effect that a longer intervention period could have had on the comprehension and recall levels of the students. Relating this to my study, despite having a small sample, it had a longer duration and it focused on the participating teachers assessing the effectiveness of graphic organisers, rather than myself as a researcher. This gave the opportunity to the teachers to observe and report any retained longer-term effects of using graphic organisers on reading comprehension and recall.

In regards to reading comprehension of narrative text, the work of Gardill and Jirendra (1999) who implemented the use of story maps to improve reading comprehension of six students with reading difficulties, over a period of 14 to 20 weeks (number of sessions unspecified), yielded positive results. They claimed that story maps provided a clear visual framework of the main story elements, thus enhancing comprehension. The promising outcomes of this work were aligned with the work of Dimino et al. (1990) and Ponce et al. (2013). Both projects included

samples of 32 and 2,468 students respectively. Research by Ponce et al. (2013) used a cluster-randomised sampling process, which explains the large sample size. The project undertaken by Dimino et al (1990) had a duration of four weeks whereas the one by Ponce et al. (2013) lasted one semester (comprising of 14 sessions). Both researches highlighted the positive effects of using graphic organisers to improve reading comprehension of students with reading difficulties. Participants showed an overall improvement in reading comprehension, measured through oral and written retelling. There were also signs of generalisation of the strategy effects on other reading materials.

Slightly contradictory results were evident in the work of Guastello et al. (2000) who examined the effect of graphic organisers on expository texts. They suggest that the positive effect of graphic organisers is sustained if they are used in a supportive manner and not as a sole instructional tool. However, their work found that the use of graphic organisers can be beneficial for the reading comprehension of expository texts by students with reading difficulties. This is because graphic organisers can help students remember and categorise new information, evaluate this newly gained knowledge and finally map it into a meaningful whole.

In contrast, De Bueno (2008) found that graphic organisers could be helpful for these students because they provide a *"logical organisation"* (De Bueno, 2008: 20) of new ideas in a graphical way which is aligned with their ability for parallel and complex thinking. The researcher suggests that students with reading difficulties should be given individualised instruction based on their learning needs and with graphic organisers. In this way, students' difficulties could be mediated by the use of graphic organisers as a scaffold for linking concepts and ideas which could also prove motivational for them. De Bueno's claim is that graphic organisers could build on the abilities and strengths of students with reading difficulties. There is also a suggestion that graphic organisers could be used as a monitoring tool for the effective control of metacognitive abilities and their evolving learning characteristics as students mature and progress in learning.

3.4.6 Factors affecting the effectiveness of graphic organisers

Studies highlight the potential that graphic organisers have for promoting

meaningful learning (explored earlier). The literature suggests that using graphic organisers can be effective with students of all ages, aiding many aspects of school life, such as student achievement, reading comprehension and recall of main ideas. It seems to be a flexible tool that can be used to ascertain the prior knowledge held by students, during reading to assist the reading procedure or post-reading to facilitate reading comprehension, recall and identification of the main ideas in the reading material.

However, there is still much to discover. Over time, the focus of research on graphic organisers has shifted. During the 1980s and 1990s the focus was mainly on exploring the effect that graphic organisers have on various components of learning such as reading comprehension of narrative and expository texts and the retention and recall of information via empirical testing. After the millennium, the focus has shifted towards an exploration of the conditions that may be needed for more effective use of graphic organisers. These conditions evolve around how the characteristics of the readers, of the text and of the graphic organisers themselves affect the usefulness of this tool (Casteleyn et al., 2013).

A central concern relates to the experience of the reader in using graphic organisers. Motivation and how students perceive this technique influence the effectiveness of graphic organisers and need further exploration. The benefits claimed in the studies and meta-analyses should be considered with caution as the level of impact that graphic organisers have depend on the level of training that students receive in their use. It seems that this training should be carried out by teachers, who should determine the conditions under which a graphic organiser might be helpful based on the individual characteristics of each student (Ponce et al., 2013; Robinson et al., 2003). Teachers should decide on the length of training needed for the students to adopt this technique. This shift of responsibility to the teachers is one of the reasons why my research places the teachers at the centre of attention and why my research questions evolve around the educative potential and use of graphic organisers, as seen, discussed and argued by the teachers themselves when describing their experiences.

Considering the text characteristics that influence the effectiveness of graphic

organisers, it appears that texts that score higher in familiarity and are correlated with prior experiences of students affect the level of impact of graphic organisers (Alvermann & Boothby, 1983). It is argued that the use of graphic organisers in texts that are more familiar to the students and their everyday life and experiences are more effective in promoting reading comprehension and recall scores (Alvermann & Boothby, 1983). Adding to this, it seems that certain texts are more appropriate to be accompanied by graphic organisers than others, according to their degree of abstraction and difficulty (Hall et al., 1992). The effect of graphic organisers will, therefore, vary according to text characteristics. Hall et al. (2005) warned that the novelty of graphic organisers combined with complexity and unfamiliarity may result in overloading the student and cancelling any beneficial effects of using the graphic organiser.

Turning to the characteristics of graphic organisers themselves as another factor influencing their effectiveness, this factor is linked with their appearance. The argument is that learning activities that have aesthetic value, challenge and novelty, facilitate intrinsic self-motivation and are more effective (Ryan & Deci 2000). Wallace et al. (1998) explored the effectiveness of enhanced knowledge maps by manipulating their graphic design through introducing more colour, various shapes of nodes and altering their spatial arrangement.

Teacher constructed Versus learner constructed graphic organisers

A strand of recent research has been involved with the dilemma of whether providing students with ready-made graphic organisers provided by teachers or expert graphic organisers (as they have been described in the literature) is more effective than learner-constructed graphic organisers during the reading task. Lee and Nelson (2005) describe the former as the provision of instructional material and the latter as the generation of instructional strategy. Kim et al.'s (2004) meta-analysis found that regardless of who produces the graphic organiser, the effect sizes were large with students using graphic organisers outperforming those who did not. Providing expert graphic organisers has been described as *"a passive treatment"* (Stull & Mayer, 2007: 808), however, it is argued that this provision can encourage students to think and understand how a text can be converted into a spatial structure. On the other hand, a more *"active treatment"* (Stull & Mayer,

2007: 808) is to allow learners to create their own graphic organisers. This challenges them to engage in deep thinking about how to select the information of the text and organise it graphically.

Researchers who are in favour of the provision of pre-prepared organisers during the reading process argue that, in this way, the structure of a text is provided clearly to the students for them to use as a guide in a productive process of working on a text to retrieve and comprehend the main concepts and ideas (Chang et al., 2002). Moreover, the theoretical rationale behind this method is based on cognitive load theory, and stipulates that students are guided into more meaningful learning due to the fact that they will not be distracted by text characteristics or cognitive processing that are not related to the main aim of instruction that is retention, assimilation and comprehension of new information (Mayer, 2005; Stull & Mayer, 2007). Therefore, cognitive load is minimised and focused on the essential processing of the text (Ellis, 2004). In addition, it is suggested that students may benefit by gaining a coherent and explicit representation of expert knowledge, focusing their attention on the integrated concepts (Robinson & Kiewra, 1995), while the instructional time that is saved by not being involved in their construction process can be devoted in teaching on how to use graphic organisers as a reading strategy.

On the other hand, researchers who argue in favour of allowing students to construct their own graphic organisers while engaged in reading, suggest that if not engaged in active learning by doing, the students will be engaged in a passive acceptance of knowledge (Chang et al., 2002). Based on the theoretical rationale of productive learning promoted by activity theory (Stull & Mayer, 2007) it is suggested that this method will urge students to engage in independent and autonomous learning while promoting a deeper understanding by challenging them to construct something new that necessitates selecting and organising information they derive from texts (Chang et al., 2002; Stull & Mayer, 2007). Thus, creating a graphic organiser would be considered as a productive learning activity directly related to the instructional objective (Kirschner et al., 2006; Mayer, 2004; Stull & Mayer, 2007). In addition, it is claimed that in this case, the student is involved in a deeper processing and organising of main ideas from a text (Alvermann, 1981).

Kinchin (2000) claims that allowing students to create their own graphic organisers, allows for a clear and idiosyncratic depiction of their understanding, encouraging feelings of intellectual ownership by students.

Training students to construct graphic organisers may facilitate recall of information by changing the expectations of students during comprehension, making the macrostructure of a text easily accessible to the learner and focusing attention on the overall organisation of information (Chmielewski & Dansereau, 1998). Training students to construct graphic organisers may be a transferable skill that could assist them with developing top-down processing strategies facilitating learning from text (Chmielewski & Dansereau, 1998). Overall, the study by Chmielewski and Dansereau (1998) claims that exposure to graphic organisers and learning to construct and use them is a transferable strategy that could be applied to other visual formats as well as text. In addition, training students to generate graphic organisers seems to simultaneously train them to practice their writing skills and apply principles of purposive writing (Sturm & Rankin-Erickson, 2002; Ponce et al., 2013).

However, it is important to note that teaching students to construct graphic organisers is complex and requires significant input and intervention by the teacher to provide directions to the students (Robinson et al., 2003). Training students to construct graphic organisers can be time consuming and may be a complex activity which might end up adding to the cognitive load of students (Chang et al., 2002; Stull & Mayer, 2007), as this process necessitates extraneous cognitive processing by focusing students' attention on the mechanics of creating graphic organisers (Mayer & Moreno, 2003). Extraneous cognitive processing is defined as cognitive processing that does not directly support knowledge construction, and is caused by instruction that is poorly designed (Mayer, 2001; 2005).

Semi-completed graphic organisers Versus graphic organisers created from scratch

There has been some discussion relating to the differences between semi-completed graphic organisers whereby students fill in blanks and the full construction of graphic organisers. The first refers to the condition of the student filling in gaps and

missing information of some nodes and links on a semi-completed graphic organiser, and the second condition refers to the student constructing a graphic organiser from scratch (Chang et al., 2001). It is argued that the semi-completed graphic organiser acts as a scaffold for students, alleviating any frustration that students may face during the construction phase (Paas, 1992), reducing their cognitive load, whilst acting as a referent of the knowledge structure and providing instant feedback to the student (Naveh-Benjamin et al., 1998).

Furthermore, expanding on this discussion, research proposed by Chang et al. (2001), argue that the learning effects of using a semi-completed graphic organiser involving computer software was more positive than constructing a graphic organiser without any guidance using a computer software. This aligns with the idea proposed by Paas (1992) that a scaffolding aid such as a semi-completed graphic organiser reduces the workload and cognitive load of the student, with the focus shifting on filling in the blanks and comprehending the entire content rather than engaging in constructing a graphic organiser from scratch. This study aligns with the ideas of Brown and Campione (1994), that guided learning could promote reflective thinking and metacognition, encouraging transferability as a learning strategy in other contexts.

Bringing all arguments together, the central point of discussion is whether the active participation of students in constructing the organisers is important and could play a central role in fostering students' memory in respect of the contents of a text (Chang et al., 2002; Lee & Nelson, 2005; Novak, 1998). However, there are researchers (Ellis, 2004; Stull & Mayer, 2007) who suggest that eliminating the cognitive load of students during the process of reading and keeping them motivated and focused in the actual task of understanding the main ideas of a text is more important. Both claims are equally valid and need further research to ascertain which method is more effective. Consideration should also be given on the individual characteristics and abilities of students and how these can affect which method should be applied in each context.

Optimal position of graphic organisers during lessons

Linked to the above argument is the discussion on the optimal position of a graphic

organiser, presented before or after a text. Shaw et al. (2012) discussed the order effect of a graphic organiser and compared the effectiveness of both positions, as the assumption that presenting a graphic organiser after reading a text was more effective (suggested by Moore and Readence, 1984), has remained unchallenged. The study by Shaw et al. (2012) supports the meta-analytic conclusion that presenting a graphic organise after a text is more beneficial to students who outperform the students who were provided with a graphic organiser prior to reading a text on a transfer test. However, the researchers argue that the students who participated in the study did not have extensive prior knowledge of the subject matter of the text, which may have influenced the results, so that if the prior knowledge was more extensive, the graphic organiser would have served as an advance organiser presented prior to reading a text.

Bringing this section to a close, such highlighted debates in the literature in respect of the conditions that affect the usefulness of graphic organisers, such as the characteristics of students, of their teachers, of the learning material and of the graphic organisers themselves, is one of the main reasons that led me to form the below three core research questions to frame my exploration.

- How are graphic organisers deployed by the special education teachers within withdrawal classrooms?

- What is the impact of using graphic organisers on student learning and teacher development?

- What influences special education teachers to change and develop their professional practices through innovative approaches?

3.5 Conclusion

This chapter has sought to provide an account of the learning theory that my research is based upon as well as provide the theoretical background for the development and use of graphic organisers in education. Having carefully interrogated the aspects of learning theory that justify the development of graphic

organisers as an innovative teaching tool, this chapter's central argument is that the use of graphic organisers can be a flexible teaching tool that can be modified and used in a variety of learning circumstances, in contemporary schools. Graphic organisers that visually represent knowledge can be effective in communicating information and facilitating the construction of knowledge. In addition, the cognitive load of the learner is reduced as text details are omitted from the visual display, facilitating cognitive engagement with the learning task. It falls to research initiatives, such as the one I have undertaken, to provide evidence in support of this hypothesis or provide arguments against it.

In this chapter I have also argued that an acknowledgement of the individual characteristics of students should be taken into account when considering the effective identification of the conditions that can foster a more effective application of graphic organisers and a successful personal construction of knowledge. By rooting my research in this principle, I argue that the recognition of personal characteristics can only be carried out by teachers who have everyday contact with their students. I also maintain that teachers hold an important role in recognising the conditions in which graphic organisers as an innovative teaching tool are applicable in their classrooms. Hence, my research design allows for a great degree of freedom for teachers to design their own lessons. Moreover, the teachers' daily interaction with their students allows them to comment on and observe whether the use of graphic organisers has any effect on their students' performance.

From a review and exploration of existing literature in the area of learning theory and research into graphic organisers, it is evident that many claims have been made for their reported use and effectiveness in supporting students' reading development (cognitively and emotionally), whereas some research has already explored what types of graphic organisers are more effective than others. However, little research has concentrated on teachers, and especially special education teachers (with their specific expertise), becoming involved in developing and designing graphic organisers solely based on the individual characteristics of their students without researchers imposing the application of a planned intervention. Thus, following careful reflection on such gaps in the literature as well as some methodological differences of my project when compared with those reported in

this chapter, I believe I have refined my three core research questions (set out in chapter 1) so that they have the potential to provide further evidence in support of the reported benefits of using graphic organisers as an effective and innovative teaching tool by special education teachers in assisting students with reading difficulties.

In the next chapter I turn to explore in depth the main characters in an educational event, the students and their teachers, in order to understand their interactions. I consider the various interpretations of reading difficulties as well as looking at established approaches for working with students with reading difficulties. Furthermore, I critically explore literature that focuses on teachers, their task of promoting innovative teaching methods and tools for their students and how this challenge links with continuous professional development.

Chapter 4: The main characters: students with reading difficulties and their teachers

4.1 Introduction

This chapter focuses on the two main characters that interact during the educational event that I am researching: the student with reading difficulties and their teachers. The chapter explores the term "reading difficulties" followed by a deliberation on some of the pedagogy used with students with reading difficulties. Then the chapter explores some relevant literature related to teachers' continuous professional development, their responsibility in teaching students with reading difficulties and their overall role in promoting effective education activities and opportunities for these students. Conceptualising the term "reading difficulties" was a difficult task given the various understandings and interpretations of this concept that can be found in existing literature. As a result, the initial parts of this chapter that are concerned with this term are longer than the sections discussing literature on teachers and their continuous professional development.

4.2 Understanding Reading Difficulties

As my research is based on the implementation of graphic organisers as a teaching aid for supporting students with reading difficulties, it is important to explore what is meant by "reading difficulties". This will assist in gaining insights into the claims for the potential benefits of graphic organisers in this area of education as reported in the literature (chapter 3).

As discussed in chapter 2, for the purposes of my thesis, the term that is used throughout, is reading difficulties. The rationale behind this choice is twofold. First, as I have argued in chapter 2, the linguistic context of my research being Greek (a transparent language) and the consequent subtle difficulties it creates for readers allows for this term to be applicable. Second, this term is used to refer to students with reading difficulties as an acknowledgement of the person-first language form of communicating, acknowledging and referring to disabilities, proposed by the American Psychological Association (2012). As highlighted in chapter 2, I

appreciate that researchers within the arena of Disability Studies, such as Brueggeman (2013) and Goodley (2011) have contested the use of this term and advocate the use of identity-first language, whereas researchers such Dunn and Andrews (2015) recommend using both person-first and identity-first terms interchangeably, acknowledging the perspectives of both fields. Gill (1995) and Solomon (2012) further suggest that writers should use the term Disabled, with a capital D, following the Deaf culture, who use capitalization to promote a sense of community. However, it goes beyond the scope of my thesis to explore this debate further and I believe that a people first approach is suitable for the writing about students that my research is targeted on.

Interpretations of reading difficulties may vary. This may be the main reason why the general perception of this issue seems to be fragmented. As Stanovich (1992) denotes, the term reading difficulties is conceptualised differently based on whether it is used for scientific purposes, for educational and legislative purposes or for personal purposes by people with reading difficulties themselves. For individuals with reading difficulties in particular, one part of the discussion centres on issues of labelling and identity. Tenny (1992) has reading difficulties himself and he introduces the reader to his work by describing himself as a purple person. I cannot do justice to his reasoning for selecting this terminology, therefore I present a direct quotation from his article:

> *I am a Purple Person. You can't tell by looking at me because being Purple doesn't really show. It does, however, affect my behaviour —what I can do and what I can't do. I reverse words and numbers, confuse right and left, can't spell worth a hoot, and write nearly illegibly. It is almost impossible for me to memorize by rote, and I often have to reread things to understand even the simplest of ideas. Sounds confuse me when they come from more than one source at the same time, and my office is a mess— piles of paper everywhere and clutter on the floor…. From these descriptors, most educators today would label me as learning disabled or dyslexic, but there are other descriptors that apply equally well. Instead of emphasizing my deficiencies, they illustrate my abilities… Why purple? Because the term has no pre-established value; you don't know if being purple is good or bad.*

> *Labels, although convenient, are too often derived from a single (usually negative) perspective. It's not that the description of things I don't do well is untrue; it's just that there is more to me than my deficiencies. A label I like, and one that seems to describe my abilities as well as my deficiencies, is multivariate, nonlinear thinker* (Tenny, 1992: 359-360).

Tenny's account brings to the surface the sensitivity that people with reading difficulties and people with special educational needs in general have in relation to labelling and the negative connotations this may hold for them (also discussed in chapter 2). The aim is to look at the person holistically and lift the focus from their reading difficulties which is just another facet of their individuality and not their defining characteristic. This aligns with research that states that one of the most prevalent problems that people with any type of difficulties face is that they are often recognised in society by their difficulty only and *"in need for special resources"* (Jerlinder et al., 2009: 331).

Focusing on what is meant by the term reading difficulties, this concept is fluid and is embedded in a wider discussion concerning the terms learning difficulty or disability. Broadly speaking, in the literature, it is typical for reading difficulties to be defined as an unusual and unexpected difficulty in learning to read and spell by students who are otherwise typically developing well (Lyon et al., 2003; Tunmer & Greaney, 2010). The primary challenges associated with reading difficulties are difficulties in phonological awareness and coding (which is considered to be one of the main characteristics in failing to develop reading skills) (Pammer & Vidyasagar, 2005), decoding, automatized naming and word recognition. The secondary difficulties include reduced text comprehension skills and reading fluency skills (Koriakin & Kaufman, 2017).

Moreover, bearing in mind the importance of viewing reading difficulties within the linguistic domain and nature of each language (Caravolas et al., 2005; Seymour et al., 2003), it is acknowledged that orthographies are not always consistent in many oral languages. Therefore, conceptualising reading difficulties becomes more complex as acquiring reading skills is a complex procedure that relies on various independent linguistic and cognitive mechanisms and skills (Byrne, 2005).

Reviewing the various interpretations of reading difficulties, I agree with McEneaney et al. (2006), who divided these views into three main categories; categorical, discrepancy and transactional views. Historically, it seems that conceptualising reading difficulties was linked with the categorical and discrepancy views emerging from cognitive theories of learning with the focus being on the causes of reading difficulties. However, nowadays acknowledging the social embeddedness of learning (also discussed in the previous chapter) a transactional view of reading difficulties, founded on situated cognition and sociocultural theories of literacy and teaching instruction, is more common in the literature. My research is based on an acknowledgement of the social embeddedness of learning (discussed in chapter 3) and reading. Therefore, the transactional perspective of interpreting and understanding reading difficulties is in alignment with my argument throughout my thesis. In this section, these approaches will be briefly described, but an extensive discussion of the categorical and discrepancy views, falls out of the remit of my thesis as I do not consider these views as useful in terms of research.

4.2.1 Categorical view of reading difficulties

This perspective considers reading difficulties to be a result of underlying cognitive conditions (such as lack of phonological skills and developmental lag in acquiring reading skills) or related to biological and intelligence-based factors. Overall, this categorical framework seems limited and empirical research has not provided reliable evidence that readers with reading difficulties can be divided into distinct categorical types. Thus, it does not provide a sufficient basis for conceptualising and understanding reading difficulties (McEneaney et al., 2006). Elliott and Gibbs (2008), suggest that reading difficulties have *"a high degree of phenotypic plasticity"* (Elliott & Gibbs, 2008: 479), and there is no justification for designing interventions for students with reading difficulties based on biological and neurological differences without taking into account their individual characteristics and distinctions.

4.2.2 Discrepancy view of reading difficulties

In this perspective, reading difficulties are seen as a discrepancy on a continuum,

where all readers are located (McEneaney et al., 2006). Spear-Swerling and Sternberg (1994) argue that the road to proficient reading is split into stages of development. Readers with reading difficulties are considered to be typically developing readers who wander off this road at any one of the stages of the standardised road to proficient reading.

Even though the discrepancy view is a significant step away from the categorical view that focused on causal factors of reading difficulties, it is still built on the premise that this difficulty is a result of inherent factors within the individual. This is an argument that is challenged by contemporary theorists, such as Gerber (2003) and McEneaney et al. (2006) who promote a transactional view of reading difficulties which I will now discuss. This is the view that I align with as a researcher.

4.2.3 Transactional view of reading difficulties

This view is built on acknowledging the *"natural variability of readers"* (McEneaney et al., 2006: 120) rather than aiming to establish categories as a result of trying to diagnose and find a causal link for reading difficulties (McEneaney et al., 2006). The transactional view is pragmatic and situated, acknowledging the social embeddedness of learning (also discussed in chapter 3) and specifically learning to read. Spear-Swerling and Sternberg (1994) have argued that individual differences and environmental effects should also be researched as possible causes of reading difficulties. Factors such as the home environment of the student, their exposure to reading in the early stages of their life, and/or individual differences of the students themselves may affect their performance as well as their motivation, self-perception and specific cognitive abilities. Thus, in this perspective, reading difficulties are characterised as multi-dimensional and being on a spectrum with typical reading development at one end and reading difficulties at the other end. Reading difficulties are influenced by social, cultural and individual factors (Snowling et al., 2009, Snowling & Hulme, 2012; Stothard et al., 2010). The type and level of reading difficulties the students present is an indicator of complex and independent elements such as cognitive skills, language weaknesses and the formal (school) and informal (home) interventions they experience (Snowling & Hulme, 2012).

According to Frith (2001) there are three levels of interrelated factors that impact reading development with causal links between them; biological, cognitive and behavioural. All three levels are influenced by environmental contextual factors. The causal links among all levels are due to the ongoing interaction of external factors with the internal and individual factors of each person. Thus, diagnosing and designing individual interventions for each person to support their reading development, is based on an understanding that these factors are interrelated and affect each other on an ongoing basis, with no clear-cut categories.

Overall, the importance of moving away from efforts to define and categorise reading difficulties based on their aetiology, and instead, focusing on designing an appropriate intervention for students with reading difficulties, which is where I stand as a researcher, is encapsulated by Vellutino et al. (2004) who advocate that practitioners should:

> *Shift the focus of their clinical activities away from emphasis on psychometric assessment to detect cognitive and biological causes of a child's reading difficulties for purposes of categorical labelling in favour of assessment that would eventuate in educational and remedial activities tailored to the child's individual needs* (Vellutino et al., 2004: 31).

I stand by the premise that there is no silver bullet in responding to and categorise reading difficulties. As discussed in the previous chapter, a child's successful learning and development is determined by a combination of complex and inter-related sociocultural forces. Therefore, improving literacy and student reading performance requires an acknowledgement that students come to school with a variety of different personal and social experiences and backgrounds meaning that effective pedagogy needs to attend to these differences.

4.3 Theories of Reading

Kennedy (1975) argues that without answering the question of "How do we read?", it is difficult to know how to proceed with designing intervention programmes for

students with reading difficulties. Currently, research suggests that reading is inseparable from writing and conceptualising reading difficulties accounts for both elements equally (Gao, 2013; Hodges et al., 2016). This stance advocates that the act of reading, as embedded with the act of writing, is situated and should be considered as closely bonded with the context in which the reading takes place. Thus, theorising reading acknowledges the term literacy, introduced to better describe the contemporary position, which I also follow for the purposes of my thesis. To this effect, I will only discuss reading as a situated process, without an in-depth discussion of reading as an explicit or implicit process (briefly described below).

The *"reading wars"* as characterised by Stanovich (1990), refer to polarised opinions on reading and reading instruction that monopolised earlier research in the field. On one end, there is a belief that reading is an explicit process emphasising the division of the process into stages, sequentially (Gough, 1972) or simultaneously (Rumelhart; 1977; Rayner & Pollatsek, 1989). On the other hand, reading is not seen as simple and explicit decoding process taking place on a stage by stage basis. This approach relies on the role of psycholinguistics in the process of reading. The focus falls on the interest of psycholinguistics "*in exploring the psychological reality of linguistic descriptions"* (Ruddell, 1969: 61). It involves moving from considering reading as a simple decoding process to observing how reading is more complex, *"how it ceases to be reading and become something else, thinking perhaps, or concept formation, or the acquisition of knowledge"* (Goodman, 1970: 4). The complexity of the reading process in this form has been expressed mainly through the theories of Goodman (1967) and Smith (1971). Both Goodman and Smith suggest that reading is a selective process with the reader being actively engaged with setting up various hypotheses and testing them as they read through texts. Reading is the process where the reader chooses just enough from the available information (contextual cues) to predict a decodable language structure (Goodman, 1967). Therefore, reading is not a precise process, as theorists such as Gough (1972) had suggested.

Even though both perspectives acknowledge the importance of exploring what is involved in the process of reading, they fail to account for two issues. First, that the

overall social, economic, cultural and political dynamics influence the construction of text (Marsh & Millard, 2000). No text is developed subjectively, as the writer's beliefs find their way into the text. Second, these dynamics affect how the reader perceives and interprets the text whilst their reactions towards the text and their constructions of meaning are highly influenced by their personal experiences of reading that are embedded in cultural, social, political and economic differences (Cairney, 2000; Weinberger, 1996).

Situated theories allow for the emergence of the term literacy shifting the focus towards the context in which the literacy discourse takes place. Street (2000) suggests that what is meant by a literate reader varies according to situation, whilst it is embedded in a specific language and in socio-cultural institutions. Therefore, he argues that a more suitable term for literacy should be the term "multiple literacies" which challenges the "*autonomous, singular literacy as a factor that independently has effects on other things"* (Street, 2000: 5).

Theorists advocating in favour of reading as embedded and interrelated with the context within which it takes place, stress that the role of the reader as a learner has changed as their individual world is enriched with references from books, computer games, internet and contemporary culture (Cairney, 2000; Marsh & Millard, 2003). Thus, the reading process evolves and includes autonomous functions on behalf of the reader who takes into account the different modes of information, being able to identify, assess and act upon information accordingly (Wray, 1988). Furthermore, learners are affiliated with various cultural norms according to their gender, ethnicity, sexual orientation and religion, characterised as "lifeworlds" by the authors in "The New London Group" (2000), a group of ten researchers, educators and visionaries from various countries.

The cultural perspectives and existing schemata affect the ways in which readers derive meaning from texts. Readers re-contextualise and negotiate the meaning of text based on informed critical analysis rooted in their personal knowledge and their social worlds (Dyson, 2001). Personal knowledge is not narrow and fragmented and being able to "read between the lines" is an essential skill so that learners expand their thinking into becoming critical about what they are reading, drawing

on their personal experiences (Kalantzis et al., 2003; Luke & Carrington, 2002).

Situated theories of reading postulate that literacy is a social tool that can assist in tackling inequalities and challenging the various discourses of power that have dictated what reading and literacy is, by empowering the role of the learner and the impact of their personal, economical and socio-cultural differences in deriving meaning from text (Hall et al., 2003; Levy, 2011). The current socio-cultural diversity of the globalising world necessitates that literacy involves the development of skills and knowledge for people to critically read and assess texts and to be able to respond effectively to existing challenges and dependencies (Anderson-Inman, 2009b; Crowther et al., 2001; Kellner, 2001). As Kellner suggests:

> *Literacy is thus a necessary condition to equip people to participate in the local, national and global economy… there are crucial links between literacy, democracy, empowerment and participation and that without developing adequate literacies differences between haves and have nots cannot be overcome and individuals and groups will be left out of the emerging economy, networked society and culture* (Kellner, 2001: 69).

Meanwhile, the overall reading landscape has changed and is not dominated by printed text (Anderson-Inman, 2009b). Information can be accessed increasingly through *"the powerful images and sounds of our multimedia culture"* (Thoman & Jolls, 2004: 18). Moreover, audio, visual and print technologies are used interchangeably and meaning can be imprinted by accessing information from all of these, making the task of reading an interactive process (Millard, 2003). Something that graphic organisers can replicate to some extent.

Current conceptualisations of literacy argue that there is a fluidity and flexibility in movement between the various cues, such as visual, audio and print cues, requiring the learner to be proficient in moving from one cue to the other while paying attention to significant details on screen (Mayer, 2005; Moss, 2001). Taking this argument into account, students can also be seen as designers of texts utilising a range of features such as pictures, interactive texts and sound (Kress, 2003). In

addition, text is about communicating meaning via an image, diagram, video or any other visual means that the student as a creative and critical learner uses to design texts and participate in the creation of literacy practices (Kress, 2003; Lankshear & Knobel 2008). Considering the aspects of learning that I have elaborated on in the previous chapter, appreciating the social embeddedness of learning and subsequently literacy, has allowed for innovative and interactive learning material to enter classrooms. I argue that one interactive teaching tool is the use of graphic organisers, which have the potential of communicating meaning via diagrammatic visual representation.

Bringing this section to a close, I agree with the argument that reading difficulties are at least in part, a social construction in relation to language and literacy, as proposed by Elliot and Gibbs (2008). Thus, a singular view of literacy which complements the development of a pre-defined and often traditional set of skills that a learner is expected to acquire in order to be successful, is no longer applicable (Street, 1995). As Walsh (2009) suggests, students develop their digital portfolio and enter formal education with a more diverse and technologically-driven prior knowledge that may supersede the expectations set upon them by the school. This allows for the assumption that learning has evolved and literacy is a complex procedure that exceeds the necessity to just learn how to read and write, evolving into the flexible acquisition of a varied repertoire of skills to interpret text in various forms, from its traditional spoken and print forms to its multimedia formats, as established within the various social contexts (Luke & Carrington, 2002). Moreover, research highlights the importance of individual differences in the manifestation of reading difficulties necessitating a tailored approach to suit individual needs. I believe that this focus acknowledges the diversity of students, the evolving views of literacies and innovative and contemporary approaches in teaching tools.

However, I appreciate that whilst these theories of reading are influential in terms of schools and educational professionals concerned with those students who exhibit more reading difficulties that their peer group, making provisions for meeting the needs of these students, in real classrooms the scene may be more complicated. This is in terms of the top-down government-led approach to teaching, that is

mandated through policies, set curricula and current teacher training that stipulates how teaching reading should be undertaken, such as via systematic synthetics phonics instruction in England. This caveat, therefore, may hinder the prospect of using alternative teaching tools, such as these promoted via the theories of reading I have discussed in this section. Acknowledging this conflict, I now turn to explore some instruction programmes that relevant literature highlights for their potential in effectively responding to reading difficulties. This is not intended to be a comprehensive account; rather than an attempt to describe some of the ways that teachers may employ to assist students with reading difficulties.

4.4 Responding to Reading Difficulties

I believe that the plurality of socio-cultural institutions and the diverse student populations attending formal education raises concerns as to the effectiveness of a general unaltered didactic approach for teaching students with reading difficulties. Pandeliadu et al. (2008) argue that it seems ineffective to use the same teaching practices, teaching material and didactic approaches to address all students without allowing for differentiated teaching. Ideas such as accessible curriculum (Rose et al., 2005), inclusive education plans (European Commission, 2013), differentiated instruction (Tomlinson, 2003) and offering supportive scaffolding to students (Ferguson & McDonough, 2010) are important. In response, a variety of teaching practices and differentiated provisions have been suggested with some interventions being more popular than others (Lloyd et al., 1998). However, Norwich and Lewis (2007) highlight that this does not necessarily entail the introduction of completely different or specialised techniques for students experiencing learning difficulties, but that the interventions need to be differentiated, with more intense and focused teaching.

The diversity of the obstacles faced by students with reading difficulties and students with special educational needs in general, has generated a wide set of different teaching practices based on this diversity (Swanson & De La Paz, 1998). For some, effective instruction is defined as explicit, structured and intensive instruction in phonology (Foorman et al., 1998; Vellutino et al., 1996). For others, aligning with theories arguing that reading is highly situated within the linguistic

and social context of language (which is an idea that I agree with), effective instruction is focused on meaning-making and the development of higher-level skills as well as word skills (Aaron et al., 1990; Bos & Anders, 1990; Foorman, 1994, Share & Stanovich, 1995). This is built on the argument that students should be seen as independent learners, being in charge of their own meaning-making (Hattie, 2009). Through this lens, instruction is seen as a means to train and educate students to be critical whilst reading, writing, thinking and expressing themselves productively and persuasively (National Research Council, 2000).

However, I also argue that no instructional program will be effective without encouragement and motivation to prevent feelings of low self-esteem and the development of negative self-perceptions that can stand in the way of developing proficient reading skills. Moreover, a careful consideration of the individual needs of the students is needed in order to design and adopt a personalised teaching approach fitted to the student's needs and difficulties (Griffiths & Stuart, 2013). Griffiths and Stuart (2013) further report that both student and environmental factors can be the reason for the failure of otherwise effective interventions, thus individual assessments of students should lead the decision as to what intervention is being used. The importance of respecting individual differences is also highlighted by Frith and Happe (1998) and Frith (2001) who argue that unreported specific individual challenges that a student may face, may have knock-on effects on other functions, thus again individual assessment is considered necessary. In the sections that follow, I discuss differentiation of teaching as a philosophical approach as well as looking at some specific didactic approaches that are implemented in response to reading difficulties.

4.4.1 Differentiation as a philosophical approach in teaching

Tomlinson and Imbeau (2010) consider differentiation to be a philosophy whereby the teacher reflects on their teaching, adjusting this to the plurality of learners in the classroom. Tomlinson (2012) stresses that individual potential is enhanced when attention to individual differences is catered for. Differentiated teaching refers to a systematic approach to the intervention design considering the individual needs and skills of students as well as the aims of the curriculum. The student-related dimension refers to their readiness to learn, their personal interests and prior

knowledge and their individual learning profile (Loizou, 2016; Pandeliadu et al., 2008). The learning profile itself is shaped by four elements: student's contextual approach (for example, whether they prefer working alone or with a peer), student inclination (such as interpersonal, practical or creative), gender preference and finally social preference (Tomlinson & Imbeau, 2010). The curriculum-related dimension refers to the context (knowledge and skills to be learned), processing (learning activities), products (ways to demonstrate comprehension) and finally the learning environment (Loizou, 2016; Pandeliadu & et al., 2008).

Differentiated teaching is based on the belief that students construct knowledge and are engaged in individual meaning-making based on their personal experiences, interests and prior knowledge (Gardner, 2006; Sternberg, 1985). Acknowledging the concept of differentiated instruction and bearing in mind that my research is situated within specific classrooms promoting individualised learning, the use of graphic organisers as a teaching tool seems to fit within this approach. Thus, their applicability is considered in conjunction with the elements and benefits of differentiated instruction.

4.4.2 Reading instruction teaching practices for students with reading difficulties

In this section, I explore some specific teaching practices aiming at supporting the reading development of students with reading difficulties. Whilst this is not an extensive and full account of all available teaching practices, which I do not believe would be possible to undertake within the constraints of my thesis, I am describing some teaching practices that seem to correspond with the use of graphic organisers.

Turnbill (2001) argues that learning to read is complex given the changing landscape of literacy plurality, therefore the impact of multimedia should be recognised and incorporated within differentiated provision for learning, whereby student performance is mediated by presenting information in different modalities (Levy, 2009). Multisensory teaching methods based on an auditory, phonic-visual and kinaesthetic approach (Loizou, 2016) using a variety of media such as graphics, sounds, computers and text are also recommended (Chivers, 2001). Considering the necessity for students to use a full range of multisensory modalities (visual,

auditory, oral kinaesthetic and manual kinaesthetic) multisensory teaching tools are seen as an opportunity for students to use their personal skills that are effectively developed and where students feel confident in their use (Walker, 2000). This allows for information processing and learning via alternative senses. It is also argued that the use of multisensory methods allows for cross-referencing of information, thus strengthening its acquisition (Willis, 2006). Studies such as those by Chivers (2001), Decker and Buggery (2014), Kennedy et al. (2014), Lawrence (2009) as well as meta-analyses such as those by Dexter and Hughes (2011) and Orr and Hammig (2009) highlight the potential of multisensory methodology to assist with grapho-phonemic awareness, decoding skills, spelling skills, sight word recognition, vocabulary knowledge and reading fluency. Considering the possible positive effects of using graphic organisers to visually represent information, discussed in chapter 3, I argue that their use can be regarded as such a multi-sensory approach, that can be presented in a variety of modalities, being a flexible teaching tool that compliments the literacy plurality that characterises modern education landscapes.

One of the most commonly cited teaching strategies is repeated reading practice, assumed to assist students with reading difficulties, to focus and recall information (Loizou, 2016; Willis, 2006). Goodwin (2011) argues that intensive repeated reading with students with reading difficulties fosters new white matter brain connections (the axons responsible for nervous transmissions). However, it is noted that in order to be effective, repeated reading opportunities need to be provided across time and be constantly practised and reflected upon (Sousa & Tomlinson, 2010; Toppino & Gerbier, 2014). Otherwise, it is argued that without such constant practice, learned knowledge is not sustainable (Gregory & Kuzmich, 2010; Willis, 2006).

Explicit strategy instruction has also been highlighted in the literature to be an effective teaching method to assist students develop skills for narrative and expository text analysis, comprehension, integration and recall. Examples of explicit strategy instruction are story outlines, cross-referencing, advance organisers, re-organisation of text and teacher questioning, as reported in various research syntheses (Gajria et al, 2007; Mastropieri et al., 2003). These strategies

are aimed at aiding comprehension and inferencing encourages students to participate, activating their prior knowledge whilst adopting their teacher's guidance and instruction (Oakhill, 1984; Ward-Lonergan & Duthie, 2016). Gajria et al. (2007) found that extensive modelling and guidance by the teacher resulted in improved student performance, improved ability to select and organise information and generalisation of the acquired skill, allowing for systematic practice for students with structured teacher monitoring and support. These results are echoed in research examining the effectiveness of a combination of a number of explicit strategies (Jitendra et al., 1998; Malone & Mastropieri, 1992).

A combined instructional model including explicit strategy training as well as direct instruction has been found to positively influence student performance and especially reading comprehension, whereas direct instruction positively influences word recognition. This finding was validated some time ago by Swanson et al.'s meta-analysis (1999). In addition, explicit and direct instruction aiming at illustrating the relation between print and sound, translating the alphabetic principle, is frequently combined with comprehensive approaches including reading practice to improve fluency, training in comprehension strategies and vocabulary knowledge (Fletcher, 2009; Rayner et al., 2002; Stuebing et al., 2008).

Research by Wanzek and Vaughn (2007) found that instruction programmes with a focus on decoding skills based on structured phonics instruction at early stages of education was effective for (some) students at risk of reading difficulties. There is also evidence that activities that promote phonological awareness, with a focus on phonemic awareness combined with training and encouragement to apply these skills when reading texts, could also be beneficial (Ehri et al., 2001). Moreover, careful modelling with clear stage by stage formats in strategy instruction seems to be helpful as well. This instruction accompanied by constructive feedback to students can ensure that students improve their performance and they might also generalise their strategy use across a variety of domains (Gersten et al., 2001). However, endless activities of decoding and phonology are not ideal for students as these may produce feelings of boredom and weariness. It appears that an instructional program is most effective when there is a balance and an integration of both decoding activities and actual reading activities to develop higher level

comprehension skills (National Reading Panel, 2000).

In respect of higher-level skills, Bos and Anders (1992) propose that interactive discussions between the teacher and the learner as well as content enhancing activities, such as semantic mapping, are also useful. Structured interactive teaching strategies have also been used successfully in promoting higher level comprehension tasks by Dimino et al. (1990) and Williams et al. (2009). The reasoning behind the use of interactive strategies lies within metacognition theory as well as the Vygotskian theory of learning, allowing the students to learn and acquire strategies via flexible interactive dialogues that are carefully scaffolded, providing them with guidance and assistance to learn and reflect on their own cognitive functioning (Elleman et al., 2017; Williams et al., 2009). Ward-Lonergan and Duthie (2016) argue that such scaffolding promotes critical thinking and the ability to draw inferences, which has been considered to be one of the least developed cognitive skills of students with reading difficulties (Ward-Lonergan & Duthie, 2016).

Possessing personal control and taking responsibility for one's own learning, assumes that the student has mastered the skill of self-regulated learning whereby they plan, organise knowledge according to the aims they have set, self-monitor and finally self-evaluate their performance during the knowledge acquisition process (Zimmerman, 1990). Similarly, self-regulated students have the ability to adapt when facing obstacles in their learning, such as difficult material and ineffective teaching. The use of metacognitive strategies, such as the awareness and monitoring of both cognitive resources and task demands (Olson et al., 2008) by constantly controlling and evaluating progress in reading tasks (Pressley, 2000) has also been linked with achievement at all education levels (Chevalier et al., 2017; Taraban et al., 2004). Both the abilities of self-regulation and metacognition are seen as the ultimate foundations for student motivation and self-efficacy, which are the principle approaches of social cognitive learning theories (Bandura, 1986). However, students with reading difficulties may lack the capacity to self-regulate and adjust their learning, needing guided support to develop such strategies. Ghatala et al. (1986) argue that attention by teachers needs to be systematic, prompting students to monitor their performance and make decisions based on their

assumptions. Differentiated teaching, such as the teaching practices described in the section that follows, therefore, aims at developing self-regulating, metacognitive and motivational learning dimensions (Zimmerman, 1990).

Overall, however, given that these different approaches are built on the individual needs and abilities of the students, research reviews and meta-analyses have suggested some basic principles upon which effective teaching practices for students with reading difficulties can be constructed. Students with reading difficulties seem to benefit from targeted, specific and purposeful teaching gradually moving from easier to more difficult tasks, monitoring and having feedback on their performance, explicit and intensive instruction, provision of opportunities for both guided and independent activities, practice, provision of adequate time for the student to complete the task and finally a supportive and encouraging environment (Denton, 2012; Foorman & Torgesen, 2001; Gersten et al., 2008; National Reading Panel, 2000; Wanzek & Vaughn, 2007). Furthermore, peer-assisted strategies and interactive groups which have also shown promising results (Mathes et al., 2005; Vaughn et al., 2000). The meta-analysis carried out by Elbaum et al. (1999) indicates positive effects of small group interventions of greater intensity similar to the instructional effects of one-to-one instruction, a finding also supported by Torgesen (2002).

On a final point, having given consideration to some of the teaching practices that yield positive results in promoting differentiated teaching based on student characteristics, it is important to note that positive emotional support and caring relationships between teachers and students is also critical (Loizou, 2016; Torgesen, 2002). This support takes the form of encouragement, feedback, constant dialogue, positive reinforcement and empathy (Loizou, 2016; Sousa & Tomlinson, 2010; Torgesen, 2002). The benefits of support and quality student-teacher relationships, such as higher learning levels, better performance, reduced anti-social behaviour and better school adjustment are also highlighted by Ly et al. (2012) and McCormick et al. (2013).

In summary, selecting an effective didactic approach and specific teaching practices will be based on teachers having an awareness and understanding of a

range of intervention principles and their suitability for individual students (Snowling & Hulme, 2012). Even though research in the field of effective teaching practices provides for a general template and guide, the selection of specific practices is finely grained depending on the needs and abilities of individual students (Shaywitz et al., 2008). The main ingredients for effective teaching intervention for reading that emerge here are: systematic, well-structured, multi-sensory intervention promoting direct teaching, revision, additional time provision, training in grapho-phonemic awareness as well as vocabulary training and story structure (Clarke et al., 2010; Torgesen, 2002). However, the quantities of each of these ingredients to be used need to be tailored according to the individual needs and abilities of the students, as considered by the teachers, with each lesson adjusted constantly, maintaining high quality and targeted skills (Loizou, 2016). In many ways, it can seem a daunting task for teachers to balance all the necessary ingredients for a successful tailored didactic approach for their students with reading difficulties.

Teachers have the task of selecting and adjusting their teaching practices based on the individual variances of students. Designing intervention programmes, however, requires that teachers are well-trained and have the necessary support throughout the process (Griffiths & Stuart, 2013; Moats, 1994). When considering the specific situated context of my research, whereby teachers withdraw their students from their classroom for short periods of time, the task is even more daunting. Their lesson preparation is even more tailored to their students as they teach them on a one-to-one basis in order to promote their literacy development. This is where the potential of collaborative action research materialises, as it may offer the necessary background support to in-service teachers so that they can experiment with designing alternative intervention programmes moulded on the needs and characteristics of their students. The advantage of using graphic organisers in this context is that they are low-tech, teacher-friendly materials that have the potential to be adjusted according to each student's needs, thus enabling individual progress.

4.5 Teachers

When considering the teacher as one of the main characters in my research, what I am interested in is how their role in supporting students' development, is constantly re-positioned in terms of their professionalism. This is linked with concepts of educational reform, change and the professional development of teachers with the overarching aim to promote effective education for all students. Teachers are expected to allow for provision of individualised support in their lessons, as promoted by policy and reform documents, such as European Commission (2010), UNICEF (2011) and European Agency for Special Needs and Inclusive Education (2016). However, this is not an easy task. It entails that teachers gain an understanding of how matters such as disability, learning difficulties and inclusion are conceptualised. It also entails respecting the individuality of all children, in order to be able to implement didactic approaches and teaching methods and tools that promote differentiated teaching (Chrysostomou & Symeonidou, 2017). Teachers are also required to effectively engage in continuous professional development and be reflective and involved in the decision-making process. According to Desforges (1995) reflective practice could facilitate sustainable educational change in terms of promoting positive classroom environments and teachers' attitudes.

In order to set the stage for exploring the thesis's research questions, and especially the third research question that relates to teachers and their implementation of change in their classroom and the development of their professional practices through innovative approaches, I now discuss some key aspects of teacher professional and personal development and the importance of continuous professional development initiatives and action research projects, such as the one I have undertaken.

4.5.1 Teacher development and the importance of implementing continuous professional development initiatives

Teacher development is frequently set within two distinct areas: personal and professional growth (Waters,1998a; 1998b), whereby these interact and affect each other during the process of teaching. Personal development, or self-actualisation (Maslow, 1968), refers to the initiative to develop the person as a whole, and is

promoted through reflection that includes self-regulation, metacognition and creativity (Routman, 2002); whilst professional development refers to enhancing knowledge and skills. Teacher development has been frequently analysed alongside self-efficacy, which reflects the individual's capabilities, and how these are perceived by the person themselves in order to *"organise and execute the courses of action required to produce given attainments"* (Bandura, 1986: 3). Self-efficacy is one of the personal factors that along with behavioural and environmental factors, have an impact on overall human behaviour (Bandura, 1986).

Focusing on professional development, continuous professional development in the form of courses and workshops have been scrutinised for their effectiveness in bringing classroom change and assisting teachers' development. It has also been discussed for its potential to encourage awareness and confidence in the individual's abilities pursuing higher order objectives with purpose, effectively promoting self-efficacy skills (Ingvarson et al., 2003; Petridou et al., 2017). Whilst the potential of continuous professional development initiatives is recognised, transfer of knowledge and skills is limited if this is not learned in situated contexts (Brown et al., 1989). Mouza (2002) expresses concerns that isolated one-off workshops do not provide continuous support once the teachers return to their schools, thus the link between the two worlds is not sustained.

In Cyprus, where my research is situated, one of the main aims of the educational reform designed by the Ministry of Education and Culture (2008) was to restructure the training and professional development programmes of teachers towards a more self-regulated procedure, with support from the schools (chapter 2 discusses this further). To this effect, the RELEASE project titled: "Towards achieving self-regulated learning as a core in teachers' in-service training in Cyprus," encapsulated the objectives of the Ministry of Education and Culture as well as the Cyprus Pedagogical Institute to overhaul professional development. They provided a series of seminars, courses and school-based action research, in an effort to materialise active engagement and ongoing reflective dialogue between teachers and school leaders to promote lifelong professional development and self-regulated learning (Ioannidou-Koutselini & Patsalidou, 2015).

Having acknowledged earlier Mouza's (2002) concern that isolated workshops can be an ineffective form of continuous professional development initiatives, I now turn to discuss what types of continuous development initiatives are considered effective. Relevant literature in the field highlights that teacher-led collaborative projects (Lydon & King, 2009) that allow for collaboration, equal participation and reflection with either researchers or colleagues (Day, 1999; Langdon, 2011), situated within the current working environment of teachers (Almas & Krumsvik, 2008; Mouza, 2002), is what works and has more benefits for teachers. These aspects will now be discussed individually.

Teacher-led research has been proposed to overcome the gap between theory and practice, especially when research projects target areas and concerns that have been identified by teachers themselves. Extending this argument, related research suggests that collaborative continuous professional development programmes between teachers, with higher education institutions or other professionals can be effective (Lydon & King, 2009). Support and engagement with a mentor, critical friend or expert provides skilled, active and meaningful challenge and encouragement (Day, 1993; Holden, 1997).

In addition, according to Koutselini (2008; 2010) and Mouza (2002) ongoing interaction and cooperation between teachers as colleagues, secured by dialogical reflection, promotes mutual growth, challenging teachers to reflect and develop effective practices for their own classrooms. Support amongst teachers during their working day promotes empowerment (Hall & Davis, 1995; McIntosh, 2010), whilst coaching and mentoring fosters meaningful interactions amongst them leading to mutual responsibility and the formulation of effective ideas (Hertzog, 2002) securing professional learning whilst being part of the inquiry community (Cochran-Smith & Lytle, 1999; Cochran-Smith, 2003). The effectiveness of collaborative practice has been discussed for its impact on improving the quality of teaching (Brady 2009; Day et al., 2002; Langdon, 2011), teacher's motivation (Lee, 2009) and student achievement (European Union, 2010). The interrelation between professional collaboration and change has also been noted in the Cypriot educational context by Loizou (2011) via a qualitative analysis of data from 18 primary school teachers. Loizou's research indicates that Cypriot primary school

teachers are open to collaboration and self-reflection in order to promote their professional development.

Exploring the issue of situated learning and its correlation with professional development, some time ago Little (1994) suggested that learning and training in using new techniques by teachers through ongoing support was more effective when this training took place in the teachers' classrooms. This argument links to Eraut's (1994; 2000) claim that the context in which the new knowledge or skill is acquired and effectively used in, is important in understanding the nature of the acquired knowledge. The importance of situated context is also discussed by Almas and Krumsvik (2008) who suggest that professional development is more constructive when it is situated in authentic classrooms where teachers are confident and comfortable. Learning to apply differentiated instruction (which was discussed earlier in this chapter for its usefulness in addressing individual differences) is a direct result of an ongoing trial and experimentation process with subsequent reflection and necessary adjustment within the authentic classroom itself (Tomlinson & Imbeau, 2010). My thesis stands by the idea that some of the most effective professional learning occurs when teachers are part of the research inquiry (Cochran-Smith, 2003). I argue that this idea acknowledges and gives value to the authentic and situated conditions and contexts experienced by each teacher whilst it promotes self-regulated learning, reflection on action, thus effecting successful professional and personal development (Ioannidou-Koutselini & Patsalidou, 2015).

My research is, therefore, designed using a methodological approach, being collaborative action research (explored further in chapter 5), as I align with the argument for the importance of undertaking research in authentic and situated classrooms. This allows teachers to experiment with the use of graphic organisers as an effective, innovative teaching tool (discussed in chapter 3) and explore what influencing factors affect their decision to promote change in their classrooms and develop their professional practices.

However, one final caveat concerns the claim that the belief system (attitudes and perceptions) of teachers as well as the support system provided by the school affect

the professional learning (Gu & Day, 2007). Beliefs, defined as the psychological predisposition of a person and their understanding about the world that is beyond personal control (Nespor, 1987; Richardson, 1996), derive from life experiences and cultural interaction (Pajares, 1992). Behaviour in the classroom and associated decisions are argued to be affected by the personal belief system (Pajares, 1992) as *"consciously, we teach what we know; unconsciously, we teach who we are"* (Hamachek, 1999: 209). However, it is argued that teachers need to be in a position to challenge their core pre-established belief system on the nature of their teaching and learning for significant changes to be made in their practice, a task that cannot arise from short continuous development programmes (Glackin, 2016; Pedder & Opfer, 2011). The acknowledgement of this argument has led to the establishment of flexible continuous development with less emphasis on the type of knowledge being transferred and more on reflection and expression of personal experiences and identity[2] that are being constantly challenged whereas the individual teaching practice is constantly transformed (Clandinin, 1986). In addition, it is acknowledged that the environment affects the teaching behaviour imposing practical issues that are often in contrast with teachers' competencies, vision and skill, making the act of teaching even more individualised (Korthagen, 2004; Zeichner & Gore, 1990). In the context of my thesis, I am interested in exploring these teaching dilemmas (Lampert, 1985) in terms of classroom management, beliefs, expectations and confidence which leave the teachers conflicted, as I consider these to be potential influencing factors affecting teachers' decisions whether to employ a teaching tool, such as the use of graphic organisers, within their classrooms.

4.6 Conclusion

Lipson and Wixson (1986: 115) argue that for students with reading difficulties, *"the way in which various knowledge sources of the reader interact with one another and with the text and the context of the reading situation"* should be acknowledged when offering them support. In this chapter I have argued that reading (as is learning overall) is socially embedded. I believe that it is more

[2] Identity is defined as dynamic, fluid and related to personal history, negotiated histories (experience), membership in multiple communities and interacting between local and global contexts (Sfard & Prusak, 2005).

valuable to consider the *"natural variability of students"* (McEaney et al., 2006:120) when trying to teach students with reading difficulties, rather than focusing on what causes these. Furthermore, the evolving contemporary view of literacy acknowledges that the learner manoeuvres between fluid and flexible contextual cues (such as visual, audible and print cues) whilst various features such as pictures, diagrams and interactive material are used for learning. These conditions, along with acknowledging that reading difficulties are influenced by different social, cultural, environmental and individual factors for each student, allow for innovative and interactive learning materials, such as the use of graphic organisers to enter classroom. This material has the ability to appeal to students and be moulded according to their unique learning characteristics.

In this chapter I have also critically explored the proposition that teachers can foster the performance of their students by designing effective teaching interventions with differentiated teaching methods and tools that facilitate their active participation in creating knowledge, within an environment that motivates their learning. The instructional support teachers design, either via individualised instruction, varied instructional materials and teaching practices, should be based on the conditions under which each student learns (Carr & Thompson, 1996). I have also argued that teachers who actively engage in ongoing professional and personal development initiatives within their authentic classrooms, have unique and individualised outcomes (Harland & Kinder, 1997). They expand their teaching arsenal with a variety of teaching approaches whilst they overcome their teaching dilemmas and potential influencing factors that may affect their teaching practices.

In this chapter (building on chapter 3), I have argued that graphic organisers offer potential positive benefits and their usefulness is rooted in long-established learning theories. I have also argued that exploring how teachers implement change in their teaching practices and experiment with innovative teaching methods and tools, especially considering the specific setting of Cypriot withdrawal classrooms, depends on students' individual characteristics as well as teachers' pre-dispositional beliefs. Finally, I have explored how participating in collaborative action research and experimenting with alternative teaching tools is a form of continuous professional development for teachers. Furthermore, the exploration of what

constitutes effective professional development and the benefits of engaging in-service teachers in educational research within their authentic classroom environments, leads to a further justification for using collaborative action research as the methodological framework for my study.

Overall, I have drawn on a critical review of literature in respect of the main characters of my research (this chapter), as well as discussed the potential benefits of using graphic organisers (previous chapter), and have aligned these elements with aspects of relevant learning and reading theories. In addition, having given careful consideration to the highlighted importance of individual differences and the necessity for teachers to tailor individualised instruction based on these differences, I believe that the three core research questions I have devised to frame my exploration, being: *how are graphic organisers deployed by the special education teachers within withdrawal classrooms; what is the impact of using graphic organisers on student learning and teacher development*; and, *what influences special education teachers to change and develop their professional practices through innovative approaches*, respect this argument and signify the importance of individuality and tailored instruction. The questions also cover what is involved in using alternative teaching tools and explore whether these are effective, whist simultaneously examining the principles and influencing factors that affect such initiatives.

I argue that the use of graphic organisers is a relatively uncomplicated teaching tool to incorporate in a lesson, acknowledging the importance of allowing for differentiated provisions for students with reading difficulties. Therefore, any reported use of graphic organisers and subsequent reported effectiveness for students with reading difficulties, should stem from tailoring their design, type and characteristics based on students' individual differences. Assessing the applicability, effectiveness and potential success of using this teaching tool by the teachers themselves, is hypothesised to have a significant influence on whether they would adopt further innovative approaches and develop their professional practices in future.

The multi-layered framework upon which my study is set, has been discussed in chapters 2, 3 and 4. I have problematized subjects in relation to the situational context of my study, learning theory and graphic organisers, as well as examined the range of interpretations and understandings of concepts in relation to the main characters of my research. These subjects will be further developed and analysed in chapters 6 and 7, whereby I examine and analyse my data. Before this further discussion and analysis, I turn next to the Methodology Chapter (chapter 5) where I consider the methodological framework and methods most appropriate for undertaking my research that aims to explore the educative potential and use of graphic organisers for special education teachers in primary withdrawal classrooms in Cyprus, where the focus is to support the learning of students with reading difficulties.

Chapter 5: Methodology and Methods

5.1 Introduction

This chapter provides an explanation of what my research design and implementation entail. The theoretical frameworks explored in chapters 2, 3 and 4 have shaped my methodological approach, methods of data analysis as well as my research questions. This chapter begins with a discussion of the construction of my research questions and the methodology that was used to undertake my research, namely collaborative action research. The chapter elaborates on the reasoning behind my selection of this methodology, critically discussing the concept of action research and in particular collaborative action research.

In section 5.2 that follows I explore the research process in detail, elaborating on all stages: planning, implementation, analysis and reflection on data collected. The layout of this section follows the four elements of an action research cycle, as detailed by Cohen et al. (2011) these being: Plan, Act, Observe and Reflect. Table 5.1 details the information included in each section.

Table 5.1: Elements discussed under each section of chapter 5

Research Cycle Phase	Elements
Plan	Recruitment of participants Access to schools
Act	Description of pilot study Description of main study
Observe	Description of data: • Interviews • Classroom observations • Diary keeping by teachers
Reflect	Data analysis description: • Transcriptions of audio data from interviews • My observation notes • Entries from teachers' diaries

The initial part of this section, *Plan*, is concerned with the inception of my research and its design along with all preparatory work undertaken before its enactment,

including access to participants. The second part, *Act*, provides an overview of the two phases of my research, the pilot study and main study. The third part, *Observe*, provides an in-depth discussion of the types of qualitative data that were collected during the main study. Finally, the fourth part, *Reflect*, discusses how the data was analysed. The final section of this chapter elaborates on ethical and methodological considerations that had to be considered before and during my research and concludes with a discussion of my role as a researcher and an exploration of research validity.

5.2 Forming my Research Questions and Selecting my Research Methodology

During the inception stage of my research and as I have discussed in the first chapter of my thesis, I was interested in looking at the most frequent obstacles that students with reading difficulties face and how an innovative teaching tool such as graphic organisers could be used within the setting of Cypriot withdrawal classrooms. Having discussed my research interests with my initial supervisor[3], I highlighted the necessity of approaching other special education teachers, like myself, who were working at the time with students with reading difficulties. This experience provided an opportunity for me to explore the views of other teachers on the potential use of alternative teaching tools, as well as looking into how teachers might engage with such experimentation initiatives effecting professional development.

Acknowledging the multi-layered theoretical framework I have set in the previous chapters and in an effort to materialise and shape my overall research interest into an operational study, I formulated the following research questions (initially set out in chapter 1). These acted as a guide as my study progressed.

- How are graphic organisers deployed by the special education teachers within withdrawal classrooms?

[3] Following the retirement of my initial primary supervisor Dr. Chris Abbott in December 2017, Professor Meg Maguire (having initially been my second supervisor) along with Dr. Jane Jones took over my supervision.

- What is the impact of using graphic organisers on student learning and teacher development?
- What influences special education teachers to change and develop their professional practices through innovative approaches?

Perhaps one of the fundamental decisions I had to make during my research was about what methodology would be most appropriate to elicit rich and meaningful data to answer my research questions. This is considered a key decision as the approach to be taken, also dictates the data collection methods and tools to be deployed. I wanted my participants' voices to be at the heart of my research and I felt that my research questions lent themselves to the use of collaborative action research methodology with qualitative data collection tools. My decision to proceed with collaborative action research was based on the claim that this methodology allows for teachers to explore and reflect on teaching situations based on their authentic experience (Kennedy, 2014). Teachers who were in charge of withdrawal classrooms were positioned in my research as collaborators capable of being reflective, with whom I was able to create a participatory inquiry. The aim was for them to express their views and personal experiences of experimenting with an innovative teaching tool in their classrooms, whilst we embarked on an exploratory journey together with the aim of informing our practice and possibly enriching our inventory of teaching tools. Thus, the role of the participating teachers extends from being research subjects to being research participants taking control of how to implement the use of graphic organisers within their specific situational context of Cypriot withdrawal classrooms.

Moreover, selecting to proceed with collaborative action research, I positioned myself as a qualitative researcher as my intention was to interpret, understand and be empathetic towards the *"subjective world of human experience"* (Cohen et al., 2011: 17), being concerned with the individuals participating in the research and how they explore their personal and authentic experience. My aim was to gain insight and understand their world through their eyes, and offer a descriptive account of their individual experiences and any similarities or variations amongst them, rather than aiming for generalisation of findings or turning individual realities

into *"generalised mush"* (Stanley & Wise, 1993: 115).

5.2.1 Discussing action research

In terms of understanding action research, I start by briefly discussing praxis, defined by Aristotle as the action that a person engages in, based on the circumstances of any given situation. The person is acting in response to the practicalities of that situation. *"Praxis is action that is morally-committed, and oriented and informed by traditions in a field"* (Kemmis & Smith, 2008: 4). Praxis suggests that no theory can stand unless an observation of its practical implementation takes place by the people directly affected by it. Through this self-conscious praxis, in-service practitioners become reflective practitioners in control of their actions and knowledge (Schon, 1991). They take a transformative role achieving self-knowledge and fulfilment (Benade, 2008; Koshy, 2005; Schon, 1991). What action research claims is a transfer of power to the insiders who are usually given directions from external agencies carrying out research in relation to their situated context they move in (Armstrong & Moore, 2004).

In an action research environment, the professionals within the context have the autonomy to explore, observe, report and interpret their findings and conclusions on their practice (Elliott, 2006), thus action research should be placed on the interpretative end of the research continuum (Hitchcock & Hughes, 1995). The reason for this claim, is that the aim of interpretation is the clarification of meaning and gaining an understanding of subjective experiences (Denzin, 1989). This argument aligns with the overall purpose of undertaking action research that focuses on understanding, and reflecting on the specific situation and context in which the research takes place.

However, as Elliott (2004) highlights, caution is needed to avoid widening the existing gap between theory and practice. Action research projects aim to generate knowledge and conclusions particular to that specific project with analysis carried out from the perspective of the participants and researcher, thus limiting the prospect of generalisation of results. Knowledge production is seen in reference to the particular environment within each project. Elliott (2004) states that his widely cited interpretation of action research published in 1991: "*Action research might be*

defined as the study of a social situation with a view to improving the quality of action research within it" (Elliott, 1991: 69), aims at marrying theory and practice, seeing the purpose of producing knowledge as inseparable from the purpose of improving practice (Elliott, 2004; 2006).

5.2.2 Discussing action research in education

Action research (initially introduced by Kurt Lewin in 1940s) has become one of the most predominant methodologies in educational research (Elliott, 2006). Action research in education entails applying research methods to practical issues encountered in schools, thus directly improving school practice and contributing to educational theory and knowledge (Kemmis, 1980), whilst promoting personal and professional development for teachers who conduct research into their own practices (McNiff et al., 1996). The potential of using action research in the field of education was first shown by Stephen Corey (1952; 1953) who argued that change in educational practice was more likely to occur if teachers or other school faculty were directly involved in research inquiry as well as implementing findings from their own research.

> *We are convinced that the disposition to study, as objectively as possible, the consequences of our own teaching is more likely to change and improve our practices than is reading about what someone else has discovered regarding the consequences of his teaching. The latter may be helpful. The former is almost certain to be* (Corey, 1953: 70).

Meanwhile, in an effort to differentiate action research projects from the everyday practices and assessments by teachers, Kemmis and McTaggart (1992) claim that *"to do action research is to plan, act, observe and reflect more carefully, more systematically, and more rigorously than one usually does in everyday life"* (Kemmis & McTaggart, 1992: 10).

In brief, action research projects in education settings aim at:

1) Professional development through improved understanding of the classroom and school by the teacher (Carr & Kemmis, 1986; Nixon, 1981).

2) Empowerment and increased self-esteem of teachers resulting from active involvement in research (Elliott, 1985; Postlethwaite, 2008).

3) Improving teachers' practice resulting from active reflection on their practice (Carr & Kemmis, 1986; Postlethwaite, 2008).

Action research has the capacity to adopt various methodological tools for innovative responses to each individual research context and set of research questions. It allows for a focus on the research process itself, how the skills and knowledge of participants develop through the experience of inquiring, rather than focusing only on the outcomes and their quality (Kindon, et al., 2007; Whitehead, 1989). Action research does not just report on predetermined outcomes but includes and describes those outcomes that were unexpected (Armstrong & Moore, 2004). Hall (1981) suggests that action research is a process of constant collaboration between research and action. The tendency to examine the processes and methods involved in the projects may lead to more effective future research designs or as Elliott characterised it: "*Second order educational research which focuses on the actions of those responsible for facilitating teacher deliberation"* (Elliott, 1985: 239). In practice, action research projects are characterised by fluidity and adaptability based on the given circumstances of each project. This is the conceptualisation of action research that my research stands by.

5.2.3 Discussing collaborative action research

Based on the influential work of Elliot (1978; 1991; 2004; 2006) whereby action research is often regarded as a form of development for teachers, I follow an interpretive approach in my methodology: an active collaboration between teachers, who are the practitioners working within an educational context, and myself as the researcher, who offers research support and observes the research procedure in order to collect and interpret the data and draw conclusions. My input is facilitated by regarding teachers as collaborators in research, having a role of co-researcher and not limited to the role of a participant. The teachers participate in all stages of the research, each contributing with a unique and authentic perspective and variable levels of expertise (Oja & Smulyan, 1989). Their involvement is based on a theory

of education as proposed by Stenhouse (1975) who suggests that research should be considered as a *"systematic inquiry made public"* (Stenhouse, 1975: 142). His work emphasises that teachers should be autonomous, informed by knowledge and with a repertoire of skills aiming for continuous professional development. Teachers, therefore, are considered to be in a continuous process of pursuing knowledge and reflection. They are informed by knowledge with a repertoire of practical skills implemented in their work. Notwithstanding the fact that the topic of my study, being the use of graphic organisers, was selected and proposed by myself to the participating teachers, sharing the responsibilities for planning and implementing the research with them as collaborators, minimises potential bias on my behalf, enhancing the validity of my research. The teachers' active involvement also encourages their experimentation and risk taking to facilitate change.

Collaborative action research provides for methodological flexibility with a dialogic commitment between the participating teachers and the researcher with the aim of inquiring *"with and for, rather than on participants"* (Kindon et al., 2007: 13). The researcher takes the role of the facilitator rather than the director in charge of the process (Wadsworth, 2006). Participating teachers and researchers learn together, reflect on their practices and gain and exchange skills from their mutual and equal participation in knowledge production which is situated and explicit within the overall context of the research (Elliott & Adelman, 1996; Reason & Bradbury, 2008).

Oja and Smulyan (1989) described four characteristics of collaborative action research as follows. I detail these to highlight the applicability of collaborative action research for my study:

1) Collaboration

   Collaboration allows for compromise and mutual support and understanding of a common aim (Carr & Kemmis, 1986; Street, 1986), providing for personal reflection (Little, 1981). Practitioners and researchers contribute different sets of skills, knowledge and experiences to a research project (Oja & Smulyan, 1989). In addition, ongoing communication is needed along with willingness on behalf of teachers to participate and discuss their practices, and diligence on behalf of

researchers in their effort to ensure that this is viable research, rewarding for all parties (Pine, 1981). Referring to my research, collaboration is provided by having discussed the use of graphic organisers in teaching and thereafter proceeding with observing their specific applicability in teaching students with reading difficulties.

2) Focus on practice

Despite the varied forms of collaborative research, i.e. teacher or researcher initiated, the aim of such projects is to focus on the specific situation with the aim of improving the relevant problem pursued (Oja & Smulyan, 1989). Again, in terms of my research the focus of my inquiry was to observe and evaluate the potential of a teaching tool to support students with reading difficulties.

3) Professional development

Rooted in the idea proposed by Lewin that social change depends on a commitment to change by those involved, Smulyan (1984) suggests that action research in education allows for more enduring changes in teaching practice, as well as solutions to professional problems. It allows for professional growth in their practice but also equips teachers with transferable knowledge and research skills (Street, 1986). Pine (1981) also argues that participating teachers become more flexible and open to new ideas but are also better able to respond to any future challenges. Professional growth is seen as a potential outcome of my inquiry both for the participating teachers as well as myself with my dual identity of researcher and teacher discussed in chapter 1.

4) Supportive project structure

For the three characteristics described above to be effective, a supportive project structure is needed. My effort to promote a flexible interpretation and implementation of collaborative action research aimed at providing a project structure that would not confine teachers in their design of their lessons.

5.2.4 Discussing and responding to criticism of collaborative action research in the context of my research

Although the advantages of action research are recognised, this methodology has

also been criticised. An earlier critique was developed by Hodgkinson (1957), who argued that teachers could not conduct any form of research due to time restrictions imposed by their busy programme as well as due to their unfamiliarity with research techniques. He claimed that teacher research could have a negative impact on the students as it would detract from offering quality education. He argued that action research could not be deemed as valid research but just a mere solution to practical problems encountered by teachers. Hitchcock and Hughes (1995) argued that action research uses the term "reflection" vaguely and clarity was needed in detailing how this term was understood. In more recent years, the critique of action research involves arguments in relation to the contestable nature of ownership of the research process and how this affects the partnership between researcher and practitioner (Denscombe, 2007). In the context of my research, my decision to acknowledge the participating teachers as collaborators, meant that the enactment of the research was left to them to organise and adjust accordingly giving consideration to their own context-specific circumstances. The flexibility that the teachers had on how and when to apply the use of graphic organisers, also provided them with reassurance and alleviated any potential pressure that conforming to a specific type of graphic organisers imposed by myself would have had. Therefore, they were able to engage in unrestricted experimentation and reflection to facilitate professional development and effect change. In addition, aligning with Kemmis and McTaggart (1992), I agree that action research is a planned, systematic, careful and rigorous observation, action and reflection on teaching practices, thus it cannot be deemed as a way of simply finding solutions to practical problems as Hodgkinson (1957) claims.

Collaborative action research has also attracted opposition from within the action research community itself, by researchers such as Whitehead and McNiff (2006). One of the arguments explored was that it was not proper research as *"it lacked the scientific rigour expected of educational research"* (Elliott, 2006: 170). It has also been argued that this approach to action research is problematic as the researcher generates the interpretation of data collected (Whitehead & McNiff, 2006). Discussing this argument in the context of my research, my rationale for selecting collaborative action research is rooted in the ideas of Elliott (1976; 1978; 1983; 2004; 2006) who in responding to the above criticisms, proposes that educational research should be redefined. The intention being to *"effect(ing) a marriage*

between the processes of theoretical reasoning (research) and making practical judgements by giving the former a home within the context of practice" (Elliott, 2006: 171). For my research, this meant giving teachers the voice to inquire and discuss the learning process as affected by the use of graphic organisers. The boundaries of my methodology are, therefore, considered to be fluid and used opportunistically to adapt to the specific content my research is situated in.

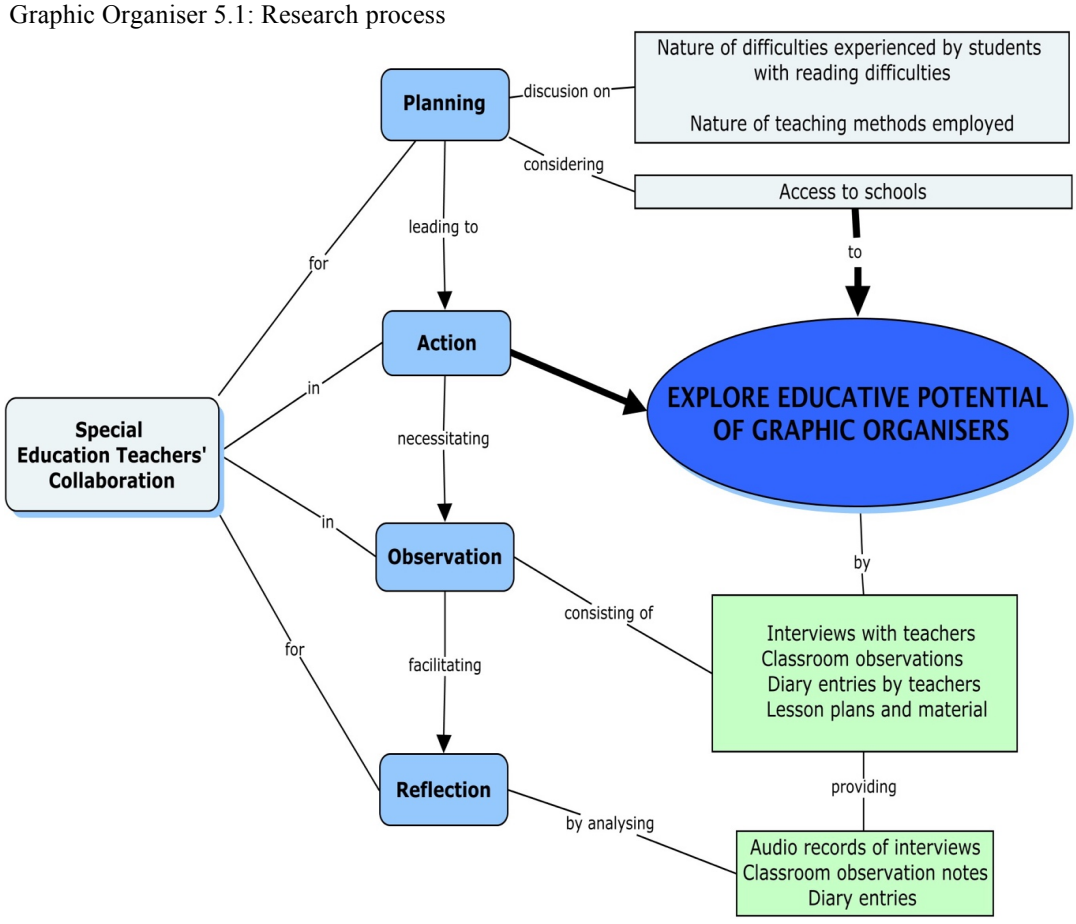
Giving careful consideration to the critique that action research and specifically collaborative action research has received, I believe that one of the most conflicting elements of my research is the consideration of where I stand as a researcher within this research context. Having initially considered the use of action research, I found that this was somewhat restricting in the sense that I was not working in a school at the time of research, thus was not able to proceed with research in my own classroom. In addition, observation and discussion of using graphic organisers in the classroom with other special education teachers, was for me an essential element for proceeding with my research, hence selecting to proceed with collaborative action research. I decided that my research was better located towards the interpretative end of the research continuum. This allowed for positioning myself as part of the research field concerned with reflection, contemplation and interpretation of the learning events witnessed during this research (discussed further in section 5.3.4).

In an effort to justify the selection of a research design with such fluidity, I suggest that my research does not aim for generalisations but instead aims to produce an in-depth exploration of the phenomenon with a limited number of participating teachers to allow for an understanding and ultimately initiating change in those specific environments and in those specific learning processes. Bassey (1992) argues that there are two kinds of empirical research, *"the search for generalisations and the study of singularities"* (Bassey, 1992: 6), my research may be better characterised as a study of singularity. It was never my intention to generalise from the results, making predictions and comparing the specific context with others, whether within the Cypriot educational system or elsewhere.

5.3 My Research Process

Given the nature of the research methodology I have used and to facilitate my research analysis, this section describes the stages of my research process: planning, implementation, analysis and reflection on data collected. The headings given to each section: Plan; Act; Observe; Reflect, follow the four elements of an action research circle (Cohen et al., 2011). My Graphic Organiser 5.1 illustrates my research process. First, the Plan section involves an analysis of the preparatory work undertaken at the inception of my research before its actual implementation. The Act section provides a description of my pilot study and main study. The Observe section discusses the qualitative data collected during the main study. Finally, the Reflect section discusses the data analysis process as well as the reasoning for the presentation format selected for the data and findings.

Graphic Organiser 5.1: Research process



5.3.1 Plan

As would be expected, the initial plans set out by PhD students (including myself) before implementing data collection do not always remain unaltered, as they have

to be adjusted to any unforeseen changes in terms of recruitment of participants and difficulties in implementing the research intervention. This section will focus on the participants and their recruitment as well as how access to schools was managed and it discusses the complexities of undertaking these. It is noted that given that my research took place in Cyprus, communication with my participants and the gatekeepers was undertaken in Greek.

5.3.1.1 Participants

I used purposive sampling to recruit my participants, necessitating hand-picking participants, *"on the basis of their judgment of their typicality or possession of the particular characteristics being sought"* (Cohen et al., 2011: 156). However, what my research contradicts in relation to this approach, is that I did not use purposive sampling to test a particular hypothesis, rather I was interested in exploring my participants' perspectives and views in-depth, therefore I had to select a specific group of teachers that could provide this in-depth information.

When I started my project, I anticipated that I would be able to recruit a larger sample of participants (maximum of eight). Even though I ultimately recruited five teachers to participate in my study, I was worried whether this number was sufficient to draw any conclusions about my research questions. However, following discussions with my supervisor and considering that the research design allowed for a variety of data to be collected, and having weighted the practicality of being a sole researcher, I felt confident that I could proceed with five participants providing sufficient data fit for the purposes of my study. In addition, I felt that this number of participants would allow me to fulfil my aim of exploring their individual realities and perspectives in-depth, whilst allowing sufficient time for data analysis and writing up of the final thesis.

I also prepared a mini training session about the use of graphic organisers for the teachers who I hoped would eventually agree to participate in my project. I realised, however, that such an endeavour would effectively mean that I would have imposed and dictated how graphic organisers were to be implemented in withdrawal classrooms. I was, therefore, worried about any bias that such a session could potentially instil in my research and this plan was scrapped before I proceeded with

my research.

My initial aim had been to recruit a maximum of eight participants with varying degrees of experience in teaching. Therefore, I initially approached eight special education teachers. Cyprus is a relatively small community and access to all eight teachers was uneventful and relatively easy. The fact that I was a special education teacher myself meant that my participants perceived me as being one of them, so accessing them was not particularly difficult (Walford, 2001). Given the fact that the majority of the special education teachers employed in Cypriot primary schools are graduates of the University of Thessaly, which is the only Greek speaking university, in both Greece and Cyprus, that provides an undergraduate degree in Special Education, I was acquainted with five (Artemis, Athena, Hestia, Ares and Apollo) of the eight special education teachers, despite them having graduated in earlier years than me. I had the telephone numbers of four (Artemis, Hestia, Apollo and Ares) from my time as a university student, and Artemis provided me with Zeus's and Athena's numbers. I met Demetra at a charity event whilst Hera was recommended to me by one of my family members who was acquainted with her. By using this form of "snowballing" I was able to reach the maximum number of participants I was aiming at. It is worth noting, however, that using such techniques can be prone to bias as it is influenced by the researcher's contacts, that may lead to over-sampling of co-operative participants (Cohen et al., 2011). However, my participants are a specific group of teachers, fulfilling the selection criteria (set out on the next page) and perhaps I would not have been able to access them in the given timeframe, had I not used this technique.

The initial contact was made through a telephone conversation, where I explained who I was and what my research involved. Five teachers agreed to meet me and discuss participating in my research (Table 5.2 provides a short biographical background for each participant). Accessing male special education teachers who would agree to participate in my research, proved to be the most challenging aspect of locating participants. The three male teachers I initially approached, Ares, Apollo and Zeus, declined to proceed with a meeting or to participate in my research. Their refusal was attributed to their busy schedules that they did not feel would allow for

involvement in such a project requiring preparation of lessons using graphic organisers.

Table 5.2: Biographical background of participants

Pseudonym	Teaching Experience	Teacher Profile
Artemis	6 years	Leading the withdrawal classroom in a primary school in Paphos district. This school was her base, where she would spend most of her time, but she was also required to attend two neighbouring schools for four 35minute teaching periods a week. She taught 12 students in total.
Hestia	8 years	Leading the withdrawal classrooms in four different primary schools in Limassol district. Her teaching time was split between the four schools. She taught 10 students in total.
Athena	5 years	Leading the withdrawal classrooms in seven different primary schools in Nicosia and Larnaca districts. Her teaching time was split between the seven schools equally. She taught 14 students in total.
Hera	14 years	Leading the withdrawal classroom in one primary school in Nicosia district. She taught 14 students in total.
Demetra	15 years	Leading the withdrawal classroom in one primary school in Nicosia district. She taught 14 students in total.

All five participating teachers met my basic inclusion criteria, outlined below:

1) They were special education teachers, working in withdrawal classrooms within mainstream primary schools.

2) They all had some familiarity with the concept of graphic organisers.

3) They all worked with students with reading difficulties, who attended their withdrawal classrooms for at least two 35minute teaching periods per week.

For classroom observation purposes, the decision was made to focus on students aged 10 years old, in order to have a level of uniformity, acknowledging, however, that individual differences will be evident and possibly prominent in this process. Overall, again for some uniformity and in order to obtain informed consent, my attention was on the student with typical cognitive development, average or above average decoding and vocabulary skills; who could identify individual words and their meaning but had difficulty in organising the separate word meanings when processing text, thus performing less well on tasks that involved reading comprehension of texts.

5.3.1.2 Initial introductory meeting with the participants

The special education teachers' involvement in my research commenced with an initial introductory meeting exploring their initial thoughts, actions and reactions, where it was also established that they were all familiar with graphic organisers and the argument that visual representation of information in knowledge production in such forms could be helpful in teaching. In addition, having an informal meeting was useful in starting to establish a feeling of trust and familiarity which I considered to be important as it allowed for the teachers to feel comfortable in my presence and to discuss issues such as their experiences in teaching. I believe sharing a meaningful experience, such as participating in research whereby classroom observations are undertaken by an external researcher, who is effectively a stranger, as well as having an open discussion and reflection on the said experience, dictates that a level of familiarity, comfortability and trust needs to be encouraged beforehand. Furthermore, considering Freire's (1972) argument for co-generative dialogue, defined as dialogue by *"subjects who meet to name the world in order to transform it"* (Freire, 1973: 136), I believe that this introductory meeting was crucial in my aim to gradually empower participation of the teachers.

During the introductory meeting, which was undertaken in Greek (the mother language of all participants and myself), we discussed the difficulties that students with reading difficulties have and how these were manifested in their classroom. This was followed by an exploration of various methods for reading comprehension instruction, highlighting whether these appear to have an effect and to what degree these are applicable in their classroom. Some of the methods discussed were: simplifying the book text, using pictures, reading aloud, providing a step by step procedure for how to extract the main elements and ideas of the text. At this point we also discussed the use of graphic organisers as a teaching tool. The intention was to establish the level of familiarity that my teachers had with this method, its development and its advantages and disadvantages. The conversation also helped to identify whether the teachers were using (or had used) this method with students with reading difficulties and if so, under what circumstances and with what outcomes. They were all aware of graphic organisers as a teaching tool, but none of them used them in their teaching currently. Teachers expressed their interest in re-visiting this tool to further explore if it would have a positive impact on the reading comprehension levels of their students. They described the use of graphic organisers as *"a tool with potential"*.

It was evident that the problems identified by the teachers were similar and reflected issues discussed in other research projects on reading comprehension, as highlighted in chapter 4. Furthermore, they reported that they always needed to adjust their lesson plan according to the individual characteristics of each student, and they identified the necessity of using alternative and somewhat "*innovative"* and *"not traditional"* teaching tools.

5.3.1.3 Access to schools

Despite having had initial introductory meetings with all five special education teachers who agreed to participate in my research, I did not anticipate that gaining access to their schools would be eventful and multi-layered.

In order to be able to formally progress with my research and access the schools where the five teachers were located, approval and clearance was needed on two levels. First, ethical approval was obtained by the Education and Management

Research Ethics Panel of King's College London on 18th July 2013 (see Appendix 1). The second tier of formal arrangements to access schools in Cyprus was more intricate as official gatekeepers needed to authorise my entry. Gatekeepers are considered to be the formal or informal figures of authority with the power to grant entry to information and access to research participants (Holloway, 1997).

The first gatekeeper was the Centre of Educational Research and Assessment in Cyprus, that required a separate written application detailing my research. Review and approval was obtained on 29th July 2013 (see Appendix 2). Despite having to provide a separate very detailed application alongside a recommendation letter from my supervisor confirming the details of my research proposal, this was relatively straightforward and permission was obtained within a week.

However, getting clearance from the second gatekeeper, the Ministry of Education and Culture of Cyprus, was more stressful and time-consuming. I did not allow for the summer recess and the Cypriot bank holiday on 15th August, which had an impact in obtaining clearance on time, endangering the possibility to be able to start my research in 2013 which would have resulted in a one year delay. Despite the teachers being willing to participate, I needed to visit the schools, meet the head-teachers and familiarise myself with the schools and withdrawal classrooms in particular, before we proceeded with observations and interviews. I also had to obtain the relevant written informed consents from the teachers, students and their parents. Thus, it was imperative that my initial visit to the schools was carried out at the beginning of the school year (starting in September). I expected that the review and grant procedure would take approximately one week, as advised by the Ministry. However, having not had an acknowledgement and reply by the Ministry's educational research operatives within this timeframe, I called the Ministry and I was advised that the majority of them were on holiday, thus there was a large backlog of research applications to be considered. At that point I was getting worried that I would not be able to initiate my research within the upcoming school year. Following multiple calls, I managed to speak to one of the operatives who was reviewing applications at that time. I explained the urgency of obtaining clearance as I intended to implement my research in the upcoming September and they agreed to prioritise my application. Finally, they carried out their independent review of my

application (initially made to the Centre of Educational Research and Assessment in Cyprus) and reviewed their recommendations, as the protocol dictates, and formally granted entry to schools on 22nd August 2013 and issued an authorisation letter to be presented to the head-teachers of the individual schools (see Appendix 3).

5.3.2 Act

Having obtained the necessary authorisations from the relevant gatekeepers in Cyprus, my research plan was implemented.

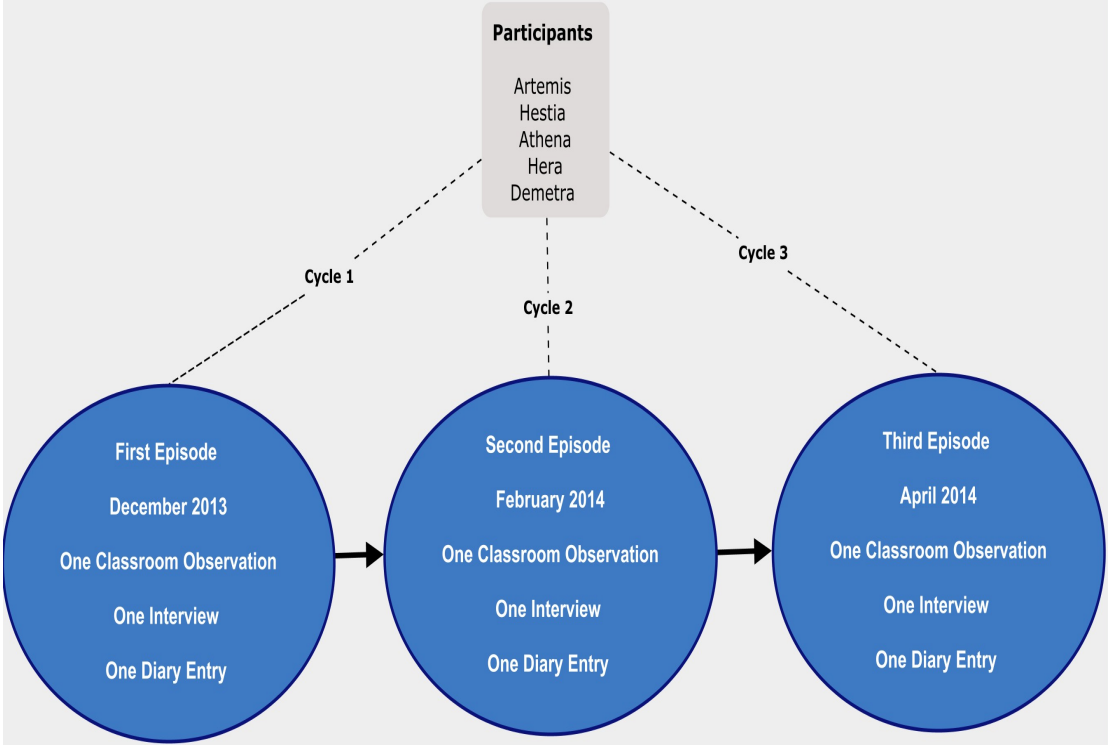
5.3.2.1 Main study

My research was undertaken within one school year. The timeline of my study was initiated with the recruitment of my participants during the summer of 2013, leading up to the beginning of the school year in September 2013. Following the initial communication with my participants, which entailed email and telephone correspondence, we proceeded with an introductory face to face meeting in August 2013 (described earlier) when we discussed how reading difficulties of students were manifested in their withdrawal classrooms as well as explored teaching techniques and tools that they used in their lessons. The meeting also assisted with establishing the level of familiarity of my participants with visual representation teaching tools, such as graphic organisers. In September 2013, once I obtained clearance from the various gatekeepers (discussed in the preceding section) and the school year had formally begun, I visited the schools of my participants, to familiarise myself with the schools and classrooms. I felt that this was also an opportune time for me to meet the head-teachers of the schools and provide further details of my study as well as give them the authorisation letter issued by the Ministry. This also enabled me to speak with my participants once again and provide all necessary information sheets and consent forms (which were translated in Greek) for them (Appendix 4) as well as for the students (Appendix 5) and their parents (Appendix 6), having first explained the study and the limited participation of the students. Given that no data would be obtained from the students, who would not have any direct interaction with myself, the consent sought by the students and their parents was effectively for my presence in the classroom whilst the one-to-one

lesson was taking place. Following this, I undertook a follow-up visit to the schools in October 2013 to further discuss and organise the implementation of the pilot study and the core data collection phase, which will be discussed in detail later in this section. Following completion of my data collection, I returned twice to the schools as I wanted to catch up and discuss my research with my participants, seeking their feedback and insight. I also wanted to explore their reactions and thoughts following their experimentation with graphic organisers. I also visited the head-teachers to thank them for allowing me to have access to their schools and work with the teachers.

Returning to the data collection phase, my Graphic Organiser 5.2 illustrates the timeline of the data collection pinpointing the timings of classroom observations and interviews for all participants.

Graphic Organiser 5.2: The three episodes of the data collection phase



This part of the study was initiated in December 2013 with the five participating teachers. The main study consisted of three rounds of lesson observations and interviews with each teacher. These are characterised as episodes, namely First, Second and Third Episode, applicable for each of the five participating teachers.

The First Episode for all teachers was recorded in December 2013, the Second Episode was recorded, following a two-month interval, in February 2014, with the Final Episode recorded in April 2014, again following a two-month interval.

Initially, I planned to undertake four observations during one school year. However, following my initial visit to the schools in September 2013, to provide the information sheets and consent forms, I realised that this would not be possible if I were to allow for sufficient interval between each cycle and accounting for school holidays and other school commitments. Discussing this matter with the participating teachers, it was agreed that an interval of two months between each cycle was sensible. This length was considered sufficient time for the teachers to practice the use of graphic organisers in their lessons, simultaneously ensuring that their participation in my research was not detracting from compliance with the National Curriculum and the learning aims set out for them. In addition, it was thought best to avoid scheduling observations in the first couple of months of the new school year, beginning in September, as it was considered an acclimatisation period for the students and teachers following the summer holidays. Furthermore, it was also considered best to avoid the last two months of the school year, May and June, which are usually devoted to revisions. Thus, an interval period of two months seemed an ideal compromise.

In detail, the study entailed that all five teachers independently designed lesson plans incorporating graphic organisers, to be used during individualised one-to-one lessons within their withdrawal classrooms. I was to observe one lesson every two months to allow for direct observation of their use. The lesson plans were mainly based on chapters and subjects from the classroom books provided by the Ministry of Education in Cyprus. It is important to note that this element of the project was controlled in its entirety by the teachers, who had flexibility as to how they designed the lessons and implemented the use of graphic organisers. There was no involvement by myself in designing or implementing the lesson plans. The lesson plans are described in detail in the following chapter with copies included in the appendices (15-29). Moreover, the teachers had the flexibility to use graphic organisers as often as they found necessary.

The first observation (December 2013) was carried out after each teacher had already performed one application of graphic organisers to allow for further familiarisation with their use, without the indirect pressure of myself as a researcher observing this initial attempt. Thereafter and following each observation, a semi-structured interview was carried out. Both classroom observations and interviews were audio-recorded. In total, three rounds of observations and interviews were implemented with each teacher. Additional data collected were the diary entries from the teachers. An in-depth analysis of the qualitative data collected is included in the Observe section below.

5.3.2.2 Pilot study

Before proceeding with the main study, however, I felt that there was a necessity for a pilot study to be undertaken. Gudmundsdottir and Brock-Utne (2010) claim that undertaking a reflective pilot study in the form of action research, influences the focus of the researcher in adapting to the situation under review; the design of the research avoiding methodological surprises; and lastly increases the reliability and validity of the research project. My pilot study provided an opportunity to review, assess and reflect on whether the design and implementation based on a collaborative action research methodology would be viable and plausible within Cypriot schools. It also allowed me to consider whether any changes to my initial research plan (such as types of data to be collected) needed to be made for a more successful final application of my research. A pilot study was carried out in November 2013 with two participating teachers, namely Artemis and Hestia. The procedure followed was their design of one lesson incorporating the use of graphic organisers that was observed by myself with a semi-structured interview taking place thereafter.

The pilot study highlighted valuable insights about the implementation of the project, both through observing the procedure myself and listening to the helpful input of the teachers. It provided an opportunity for reflection on my research and review of its advantages and weaknesses. In brief, it reinforced my confidence that the selection of this methodological orientation was viable and could be implemented in Cypriot schools despite the unfamiliarity of the participating teachers with this research methodology. The pilot study also offered the possibility

to refine the aide memoire that would be used for the semi-structured interviews. From the constructive feedback received from Artemis and Hestia, this was revised to include more diverse themes. Both versions of the aide memoire are included in Appendix 7.

The small set of data, consisting of one interview and observation with each teacher, was important for the final implementation of the main study as they provided evidence that such a design could be implemented without major issues. Data collected during the pilot study, from the two participating teachers, did not form part of the data that was analysed in order for findings and conclusions to be derived from my main study. Therefore, I shall not be providing a detailed description of this data (interview transcription and observation notes).

5.3.3 Observe

The heading "Observe" derives from the action research cycle (Cohen et al., 2011) and refers to the stage during which the designed intervention is implemented. In this section, I elaborate on the types of qualitative data I collected during my research. In order to justify the decision to gather qualitative data during the project, I refer back to my argument at the beginning of this chapter stating that action research and collaborative action research in particular, is better positioned at the interpretative end of the research continuum. Considering the importance of interpretation and reflection within the action research methodology, I decided that qualitative data would serve this purpose, as *"the central endeavour in the context of the interpretive paradigm is to understand the subjective world of human experience"* (Cohen et al., 2011: 17).

The types of data collected were:

Interview transcriptions with teachers
Classroom observation notes and transcriptions
Diary entries by teachers
Lesson plans and materials used (including texts and accompanying graphic organisers)

My decision to proceed with the above qualitative data stemmed from my aim for in-depth exploration of my participants' views and perspectives in order to provide meaningful responses to my research questions. However, initially I had also considered the deployment of open-ended questionnaires as well as the design of an intervention programme that my participants would have been requested to apply in their classrooms. These data collection methods were rejected after careful consideration of practical and ethical issues pertaining their use.

In respect of the use of questionnaires, I was considering the design of questionnaires with open-ended questions. Despite the appeal of using questionnaires due to the relative ease of collecting structured information and being comparatively straightforward to analyse (Wilson & McLean, 1994), these benefits were outweighed when I considered that a considerable amount of time would be needed to develop such a questionnaire. More importantly, I felt that a questionnaire would elicit limited scope of data whilst these would be restrictive and provide limited flexibility to my participants, considering the pitfall of using leading and sometimes dichotomous questions. I wanted to build rapport and allow my participants to reflect, elaborate and report freely on their thoughts, beliefs and perspectives, which I believe could only be allowed for with the use of interviews. Moreover, I estimated that my participants would not be so keen to fill in a questionnaire. As a matter of fact, the majority of my participants reported in their interviews that had I brought questionnaires for them to fill in, they would have declined to participate as they considered this as *"very boring and laborious"* (Hera, Interview 3).

The initial idea to design an intervention programme that I would have then asked my participants to apply in their lessons, stemmed from my BA dissertation, whereby I designed such an intervention programme and assessed the effectiveness and applicability of concept mapping for one Deaf student. However, on reflection I realised that the results would not have been the same had I followed this route for my PhD study. I wanted my participants to take over and have flexibility to design lessons using graphic organisers, as they thought best for their students. Moreover, as I have discussed in chapter 4, I feel that one-to-one lessons with students with

reading difficulties is a bespoke individualised instruction, tailored to the individual student needs and abilities, thus the use of the same intervention programme for all students did not seem appropriate.

Acknowledging the fact that the project was tailored for implementation in Cyprus, all interviews, lessons and diaries were recorded in Greek. This posed no particular issue as Greek is one of my mother languages.

5.3.3.1 Interviews

I chose to use interviews as one of the main forms of interaction and to secure feedback from the participating teachers on my research and overall progress.

Leonard (2003: 168-171) lists the five advantages of interviews over other forms of data collection, as I have summarised them below:

1. Flexibility: The flow of the interview and interaction is flexible with any necessary adjustments to the questions made easily.
2. Probes: The use of probes allows for the researcher to elicit in-depth answers.
3. Clarification: Further questions seeking clarification about ambiguous responses are permissible.
4. Confirmation: The provided answer can be repeated by the researcher, confirming the accuracy of how they interpret what is said by the interviewee.
5. Non-verbal communication: Body language offers an additional form of validity and confirmation of the responses.

According to Kvale (1996) interviews may be classified according to their purpose, their structure, whether they are exploratory or hypothesis-testing, descriptive or interpretative, cognitive or emotionally focused. Thus, interviews are an *"inter-view where knowledge is constructed in the inter-action between the interviewer and the interviewee"* (Kvale, 2008: 1). Furthermore, as argued by Cohen et al. (2011), interviews can be adjusted according to the aim and purpose of the research. The less standardised and individualised the data gathered are, the less structured the interviews will be. Semi-structured interviews allow for in-depth discussion during the interview which I believe would not have been possible with structured

interviews.

I selected to proceed with semi-structured interviews, utilising a flexible agenda as my aide-memoire, that included predetermined general themes. Questions were adapted based on the progression of the interviews in order to gain insight into the interviewee's point of view and personal experience. The interviews were flexible and adaptable, shaped by the responses received. I could also seek clarification, if necessary, in an effort to elicit more in-depth answers using probes. The choice not to use a close-answer questionnaire was to give teachers the opportunity to elaborate on their answers and express their personal opinions and views without any boundaries or obligation to a specific type of answer, to *"enable the interviewee to talk more freely"* (Norton, 2009: 99). The semi-structured interviews undertaken in Greek had a maximum duration of 45 minutes. Audio recording was used to facilitate data analysis. I believe that audio recordings of interviews as well as classroom observations, allow for an accurate record of these events. It also enables the researcher to reflect on the data at a later stage providing an opportunity to account for any nuances that may have been missed during the initial analysis of the audio data (Hopkins, 1985).

As with all research methods, criticism in relation to interviews exist. Interviews involve direct contact and cooperation between the interviewer and interviewee. However, they only bring to light the interpretations and thoughts of the interviewee as formed at that time and under the specific circumstances (Altrichter et al., 1993). The interviewee may also be withholding information that they do not want to share with the interviewer, sometimes omitting less positive comments, especially when this concerns themselves and their work (Hammersley, 2006; Marshall & Rossman, 2006). The interviewee's willingness to divulge information is also affected by their perception of the interviewer as well as the personal identity of the researcher interviewer (Descombe, 2007). Furthermore, Altrichter et al. (1993) claim that consideration should be given to the interaction between the two levels of communication: content of the interview and relationship of participants, during the interview. The relationship between the interviewer and interviewee, influences the interpretation of the content of the interview, whereas the interpretation of the context influences the relationship. Relating to my research and in an effort to

address this criticism, I acknowledge and I was aware during the data analysis process, that what is discussed during an interview is *"closely attuned to the local context"* (Hammersley, 2003: 123) and the highly situated circumstances surrounding the interview. The aforementioned issues, reinforced my decision to encourage feelings of mutual trust with my participants, initiated with the introductory meeting and continued with the ongoing contact and support, in order to enable the interviews to be *"a conversation in which two people talk about a theme of mutual interest"* (Kvale, 1996: 36) under a relationship of mutual trust which would allow for a more reliable interpretation of the context of the interview. In addition, in an effort to increase confidence in the data emerging from the interviews and my findings, I have used triangulation, corroborating the interview data with other sources of information (diary entries and classroom observations) as will also be discussed in subsequent sections of this chapter. These additional sources of data are used to confirm or dispute the context of the interviews whilst all interviews are cross-referenced to establish whether there is a level of consistency. For the purposes of my thesis, therefore, triangulation aims at getting a fuller picture introducing complementary data enhancing the completeness of my findings (Descombe, 2007).

Appendix 7 includes examples of my evolving aide-memoires. In order to shape these, I tried to thematise my study based on the formulation of my research questions. Admittedly, however, my initial agenda was more centred on the first two questions: how graphic organisers were deployed and what was their impact. This was what I termed as the practical element. The more intrinsic element involved in the third research question, such as discussing attitudes and what influenced them as professionals to change their practices, was given less time and attention. I wrongly anticipated that the practical element would have been the main area of interest for the teachers. However, reflecting on the responses I was receiving from my participants in respect of the intrinsic element, talking at length, for example, about how they identified themselves in their occupation, their beliefs, their feelings and how they perceived change and experimentation with their practices, and having seen that they were spending more time in engaging in a detailed discussion of such aspects, I adjusted my aide-memoire. I shifted my attention to give my participants the opportunity to discuss these aspects in detail, as I could see this was vital for

them (which is illustrated in chapter 7 whereby this ended up being the largest data set). I, therefore, found myself *"following up unanticipated leads from the subjects and of posing questions not prepared in advance"* (Kvale, 1996: 113). In addition, I realised that data and themes in relation to the practical element of using graphic organisers, were not evolving and did not produce significantly different or additional information. They became saturated early on and I needed to adjust my aide-memoire accordingly, as I felt that I reached *"the stage in the fieldwork where any further data collection will not provide any different information from that you have"* (Gratton & Jones, 2004: 153) in relation to these themes. Moreover, as the study was progressing from episode to episode, I found myself being more confident in not solely relying on the aide memoire, which further helped me build rapport with my participants and provided better flow and flexibility to the interviews, exploring some arising unexpected themes (Mason, 2002).

In an effort to minimise any adverse effects from external factors, the interviews took place within the withdrawal classrooms in order for the participating teachers to feel as comfortable as possible in an environment under their control. In addition, as discussed earlier in this chapter, confiding their thoughts and feelings about their own teaching practices is private information and the withdrawal classrooms offered a discreet setting where the teacher was not surrounded by other colleagues or students.

5.3.3.2 Classroom observation

Three classroom observations were carried out with each teacher, in an effort to note any long-term changes and effects that graphic organisers had, both in terms of their applicability and use by the teachers as well as their effectiveness for students with reading difficulties, as reported by the teachers themselves. The classroom observations were audio recorded. In addition to recording the lesson, I was keeping skeleton observation notes, which were two-tiered. One tier was the pre-observation notes and the second tier was the observation notes taken during the session (see Appendix 8 for an example). The pre-observation notes described the lesson plan, the learning objectives, the material used and finally teaching methods that the teacher expected to use. During the lessons, I noted any internal or external factors and characteristics that may have had an effect on the lesson, such as interruptions

by faculty or students. I also made a note of any prominent actions or behaviours of both student and teacher directly related to my research questions. I focused on the flow of the lesson, the performance of the students and any notable changes in body language from both teacher and student. I used a legend to mark the time and type of note (Appendix 9).

The importance of classroom observation stems from the fact that each classroom has its own life. It encompasses a variety of events every day. I was given the invaluable opportunity to gather live data and look what takes place in situ (Patton, 1990), enabling me to better understand the situated context of these classrooms and observe things that may have been missed and not discussed by my participants during their interviews and in their diaries. Moreover, when undertaking research involving teachers and their lessons, expecting a detailed lesson description from the teachers seems highly unlikely, because they are busy or even because teachers may not place the same gravity as the observer on specific elements and characteristics of the observed event. Wragg (2012) points out that observing a classroom and then conducting an interview or discussing the classroom's events with the teachers is significant as it provides an opportunity to reflect and question all events noted down by the observer allowing for a better understanding of the teachers' experience and viewpoint. In addition, as mentioned in the earlier section and concurring with Hammersley (2006), I felt that by using interviews, diary entries and observations, I would be in a better position to triangulate my findings, correlating these across the different sets of data that I gathered. I agree that triangulation is a powerful tool in order to get a fuller version of the subjective reality that is being observed, incorporating different facets and viewpoints of this reality (Campbell & Fiske, 1959; Descombe, 2007).

In each classroom, I was the observer. Despite not following a naturalistic observation (Norton, 2009), whereby the participants are not aware of someone observing them, I tried to minimise any possible issues or elements that could have affected my data. My presence as a third party did not aim to discourage the students from participating and behaving in their usual way nor the teachers feeling the burden of having a third party, who is also a special education teacher, scrutinising their teaching. Therefore, I did not intervene with the lesson flow or participated in

any way. I was not in close proximity to the teacher and the student during the lesson, to prevent them feeling conscious or anxious by my presence. I, therefore, had no interaction (such as eye contact) with the students or the teachers during the lesson. The audio recorder (used to facilitate data analysis) was placed in the classroom prior to the arrival of the students and not in their direct view in order not to make them feel any discomfort. However, I acknowledge that despite observations being described a non-interventionist data collection method, their use still poses ethical considerations as the influence of an observer cannot always be neutral (Cohen et al., 2011). Despite the fact that I took all necessary measures to minimise this influence, I acknowledge that the presence of a researcher in a classroom can exert power over what takes place in the classroom and the lesson flow. In fact, one of my participants, Hestia, argued that the first lesson I observed might have not been successful as a result of me being in the classroom, that might have affected the student's performance.

I am also aware that questions arise in respect of the reliability of classroom observations as a data collection tool, such as how many lessons are considered sufficient to secure reliable data and how different lessons can be objectively compared (Schlesinger & Jentsch, 2016). However, I considered the classroom observations as providing supplementary data with no explicit intention to compare them rather than describe them in detail in order to elicit data, aligning with Menzel (1978) who argues that an observer's recount of an episode alongside the perspective that the participants provide, allows for a deeper understanding of a given situation.

5.3.3.3 Diary keeping

Diary [4]entries were considered as supplemental data allowing for triangulation of my findings. I obtained fifteen diary entries from all participants (three entries from each participant). The length of each diary entry ranged between 150-250 words. Despite the fact that the participating teachers chose to make a diary entry only following the three classroom observations, I maintained my belief that

[4] The words diary and journal are used interchangeably throughout this thesis and convey the same meaning. It is acknowledged, however, that authors such as Holly (1989) argue that these are distinctive notions.

characterising this data as diary keeping is appropriate. This is due to the fact that they used this form to express some of their thoughts, their comments following the use of graphic organisers in their teaching, as well as reflect and evaluate their practices, which is the main aim of keeping a diary during research (Holly, 1989).

The teachers were asked if they would keep a research diary (see appendix 10 for an example) from the onset of their participation, following the introductory meeting, until the conclusion. The type of entries was not specified in an effort to maintain fluidity and flexibility in their use. In addition, I felt that if I had specified what I considered important entries to be noted in the diaries, then the element of freedom that I wanted the participating teachers to have would have been minimised. Furthermore, what I perceive as important might not be the same as what the teachers do and vice versa. Thus, diary entries were left to the discretion of the teachers.

Keeping a diary has been regarded as a reliable and effective form of data collection (Elliott, 1981; Smith-Sullivan, 2008). It is a source of information on personal viewpoints, observations, remarks, actions, reactions, interpretation and reflection as well as feelings, motives and attitudes (Elliott, 1981). Holly (1989: 26) states that *"*a *journal includes intentional, personal and professional reflection, analysis, planning and evaluation"*. A diary entry can be made at any given time whilst being work in progress. Self-evaluation, critique and reflection are encouraged by keeping a diary. It is a personal account and interpretation of events and supplements interview data with personal notes and observations. Keeping a diary aims to increase self-understanding by detailing personal perceptions and insights as well as giving a clear and vivid account of an event that can be revisited and analysed at any time (Altrichter et al., 1993). Kincheloe (2003) argues that one significant technique that is used by teachers and researchers to have access to students' performance and reactions to lessons as well as the teachers' own understanding of those elements is to keep a journal.

However, I note that *"diary entries much achieve a level of participant commitment and dedication rarely required in other types of research studies"* (Bolger et al., 2003: 591-592). This limitation might also explain why my participants did not

produce more diary entries during my study. In addition, Bolger et al. (2003) warn that there is the danger of participants focusing on only specific concepts in their diaries entraining their understanding and actions to fit those concepts they discuss in their diaries. To counter-balance this concern, I decided to use data entries as supplemental data, given that *"they permit the examination of reported events and experiences in their natural, spontaneous context, providing information complementary to that obtainable by more traditional designs"* (Bolger et al., 2003: 580).

5.3.4 Reflect

In keeping with the action research cycle (Cohen et al., 2011), I am using the heading "Reflect" as this is the end-stage of the cycle. In this section, I draw on my data analysis to look into the reflexive work I have undertaken in respect of my research and its findings. Considering the nature of my research and the data collected, a qualitative analysis was considered appropriate. Aligning with Norton (2009), I believe that qualitative analysis provides for an in-depth description and understanding of the participant's perspective and point of view (Norton, 2009). My data analysis was driven by my personal knowledge and understanding of existing literature in this field. As I have discussed earlier, my aim from the outset was to give voice to my participants and reflect on their perspectives in order to answer my research questions. Moreover, my position as a researcher but also as a special education teacher meant that the fact that I shared similar experiences with my participants, affected how I approached my data analysis. Aligning with Corbin and Strauss (2008), I believe that the sharing of experience meant that there is an inherent understanding of the context and a sensitivity for grasping meaning from my data. These elements help ensure that the conclusions drawn by the researcher are grounded to the data. However, I am also mindful that self-criticality and reflexivity on behalf of the researcher is needed to avoid the danger of showcasing *"confessional tales about yourself"* (Mason, 2002: 5) but using this inherent knowledge to focus on the research questions. By being reflexive and having integrity throughout, as well as being rigorous in checking bias on my part, I wanted to acknowledge that my personal beliefs shaped how I researched and how I analysed my data, which is vital in ensuring credibility of my outcomes.

The main method used to analyse the teachers' interviews, classroom observations and diaries, was thematic analysis and coding. Thematic coding consists of familiarisation with the data, identification of codes and themes, data reduction and eventually building connections between these themes (Ayres, 2008; Bogdan & Biklen, 2007). Ayres (2008) describes this method as a way to analyse qualitative data by categorising them and reconstructing them into general patterns with the use of thematic coding:

> *Thematic analysis is primarily a descriptive strategy that facilitates the search for patterns of experience within a qualitative data set; the product of a thematic analysis is a description of those patterns and the overarching design that unites them* (Ayres, 2008: 867).

Acknowledging the necessity for triangulation discussed earlier, I note that the most vital source of data was the interviews with the teachers. The observations and diaries served to provide support and increase confidence in my emerging themes and subsequently my findings and conclusions. As discussed earlier in this chapter, my skeleton observation notes and observation transcriptions (see appendix 8 for an example) were used as an additional way to triangulate my data and confirm and clarify, if necessary, the findings that arose from the data analysis of the interview transcriptions (see appendix 11 for a two page sample of transcribed interviews for each of the five participants) and the diary entries (see appendix 10 for an example). The observation notes and transcriptions also allowed for the detailed accounts of the classrooms and lesson descriptions that are included in chapter 6 that follows.

The data analysis began with my transcription of the classroom observations and interviews undertaken in Greek. I wanted to undertake this process myself as I could pick up on things that may have been missed during the actual observations and interviews. I acknowledge that the transcription process is a lengthy and time-consuming process, as I had a total of fifteen interviews and fifteen classroom observation audio data to transcribe. As Kvale (1996) estimates a one hour interview could take up to seven hours to transcribe. However, although I agree with Kvale (1996) who argues that a transcription cannot fully illustrate the interview, as it

cannot contain other cue elements such as hesitations in speech, differentiated syntax or body language etc., by transcribing the interviews, I could replay the same section more than once if necessary, in order to have new insights and ideas on the emerging themes. Moreover, the use of observations notes and transcriptions helped built a fuller and more detailed record of the observed lessons.

I also wanted to be in a position to translate parts of the transcriptions as necessary, as I wanted to use quotations from my participants throughout my thesis. As I noted earlier in my thesis, Greek is one of my mother languages. Thus, I am in a position to translate fluently from Greek to English. However, I asked a colleague who is a teacher herself and fluent in both languages to translate one paragraph from an interview transcription and thereafter compare between the two samples to ensure that my translations were accurate.

Following completion of the lengthy transcription process, I read all transcripts thoroughly prior beginning the coding process so that I could become more familiar and confident with my data. I then uploaded all interview transcriptions, along with the diary entries, on Atlas.ti, which is software used to assist with qualitative analysis and specifically coding. The entire coding process was done with the use of the software on the computer which also assisted with ascertaining word and phrase frequencies. Despite the fact that the transcriptions were in Greek, the emerging codes and themes were named in English to facilitate further analysis and interpretation. No pre-set categories or codes were used.

Once uploaded onto the software, all the transcriptions and diary entries were divided into numbered sentences. At that point I initiated open coding, breaking down my data and assigning broad codes to the numbered sentences. At this initial stage, a list of core codes emerged (Appendix 12). I identified a range of codes, which made me realise that data analysis is a lengthy and complex process necessitating to interchangeably refer to actual data and abstract concepts (Merriam, 2009). The initial list of codes primarily identified modes of use of graphic organisers, challenges in using them, their effectiveness as well as highlighted initial teacher comments in respect of their perceptions for incorporating graphic organisers in their teaching practices. The basic initial list of core codes grew as the

coding progressed, enriched by cross-referencing across all data sets once I finished going through them. Gradually I was able to cluster these codes into specific themes and categories.

Despite my initial concerns, I decided that the analysis would proceed by analysing all transcribed data from one teacher in the chronological order conducted before proceeding to another teacher. This offered the possibility of analysing every code across all data sets with one teacher providing an insight on how each idea, reflected in a code, emerged, was altered, progressed or even abandoned as the research progressed. Once all data obtained by one teacher were coded, the same analysis was followed for the data from another teacher and so on.

Once this initial coding of was completed, I returned to the data set from the beginning, as I wanted to explore and evaluate these again against the original codes, as recommended by Bryman (2012). This resulted in a final list of codes (Appendix 13). Using the code list, I grouped these into the main themes and categories. Each thematic group was labelled accordingly, depending on the type of connections identified between the various categories, such as hierarchical, causal or sequential based on their importance. At this stage I produced a basic graphic organiser to briefly demonstrate what the initial thematic organisation looked like and how the various concepts and categories of codes were related to each other (Appendix 14). The approach I took in finding the linkages and how the thematic categories are inter-related can be characterised as a form of axial coding, which is *"the act of relating categories to sub-categories along the lines of their properties and dimensions"* (Strauss & Corbin, 1990: 124). I was, however, mindful not to be so engrained in following this procedure, so that *"the fluid and dynamic nature of qualitative analysis is lost"* (Corbin & Strauss, 2008: 282).

By constantly reflecting on the code list and emerging themes and categories, I became very familiar with my data and I was able to confidently explore and build connections between codes and themes across the data set for each participant, but more importantly I was able to identify and cross-reference these amongst all five participants. However, I was inundated with a vast pool of data for each participant, and I was, therefore, concerned about data selection, and how I was to select the key

themes that showed the core similarities as well as complexities and differences across my participants. I decided that the criteria to be set for the data selection were: frequency of mentioning by all participants and across the three phases of my study, and relevance to the research questions. Thus, I focused on providing an in-depth insight into my participants' perspectives: as to how they deployed graphic organisers in withdrawal classrooms, what was the impact of using them on both student learning and teacher development and finally what were the influences that affect teachers' initiative to change, use innovative methods and develop their professional practices.

5.4 Ethics

My research adheres to the guidelines set by King's College London through the ethical approval by the Research Ethics Committee, whilst also being informed by the British Educational Research Association's Ethical Guidelines (BERA, 2014). This section aims to consider and reflect on the ethical considerations and arguments affecting my research. This is done in an effort to be critical, methodical and explicit and to offer insight into my research's background and reasoning for all decisions I have made during this journey.

5.4.1 Informed consent

Norton (2009) highlights that obtaining informed consent from participants is a vital ethical principle that any research project should adhere to. It is essential that participants agree to participate voluntarily without coercion after carefully considering all elements, duties and responsibilities that their participation entails, as well as any benefits or risks arising from their participation (Norton, 2009).

My participating teachers were provided with detailed information for the aims of the research, their responsibilities, and any adverse risks or benefits arising from their participation each time. They were also alerted to their right to withdraw at any time up until the deadline which was September 2015. This ensured their informed consent. The teachers were also invited to request a summary report of the emerging results of this project should they wish to. Finally, their consent was sought for the use audio recording of the interviews and classroom observations (Appendix 4).

Concerning the participating students and their parents, I acknowledge that under legal frameworks, the capacity of a child (under the age of 16), to provide their consent is judged according to the Gillick competency, which assumes that a child under 16 years old can provide consent to participating in research subject to having "sufficient understanding", without parents' consent (Heath et al, 2009; Mason, 2004). However, given the fact that a researcher can be legally liable in the event of a claim of harm being made by a participating child, it is considered essential and ethical to obtain parental consent as a complement to the child's consent, for safeguarding purposes (Heath et al., 2009). Therefore, for my research, students and parents were also informed and provided with written information as to what my research entailed and the level of student participation required. Although the students were not requested to provide any data, such as interviews or questionnaires, their parents' consent and their notification was essential as I was attending their children's classroom. The students and parents received a simplified version of an information sheet providing a straightforward description of the process whilst seeking their consent for the use of audio recording during their lesson. Their consent was sought after highlighting that the students would not have been directly involved in any way and that the classroom observations would not have affected the daily routine, whilst ensuring that they were not identifiable in this research (Appendices 5 and 6).

5.4.2 Confidentiality and anonymity

The protection of privacy and personal information is vital in any research (Norton, 2009). It is essential that there is no link between the data obtained by a participant and their contact details whilst the use of pseudonyms where possible is encouraged to secure full anonymity (Kalof et al., 2008). Aligning with Marczyk et al. (2005) I believe that confidentiality is embodied in the act of respecting and protecting the participants' information whilst allowing the participants to maintain control over the use of and access to the information they provide.

For the purposes of my research, confidentiality and protection of identity was clarified and safeguarded in writing while making explicit that participation was voluntary. Anonymity was secured with the use of pseudonyms for the teachers and

students. The teachers were given pseudonyms derived from Greek mythology and specifically the Greek Gods, as an ode to one of the history subjects taught in schools. Pseudonyms for students were selected at random, adhering only to their gender for identification purposes. The participating teachers were also reassured that information given during the interviews and information that was enclosed in the research diaries belong to them and that in the event of using sections of their transcribed interviews (after seeking their consent) this would have been anonymised and would not have been in any case identifiable to the participant. School names are not included anywhere in my thesis but are only differentiated via the cities these are situated in.

5.4.3 My role as a researcher – Locating the self

Acknowledging the importance of positioning myself in my research (Denzin & Lincoln, 2003), I was aware that my world view, personality and beliefs follow me when conducting my study. To this effect, I have included a section at the beginning of the thesis (chapter 1), whereby I describe the dual identity I hold, my background, my philosophy, my principles and beliefs. This personal context, my perspective and world view has shaped and informed the nature of my research inquiry and its uniqueness.

From the onset, I was conscious that holding a dual identity as a researcher and a special education teacher, would mean that I would be immersed in the data myself. I embraced this as an asset, I admitted that I am directly influenced by the data and my findings as they had a direct impact on myself as a researcher but also as a special education teacher seeking to explore the applicability of alternative teaching practices with the aim of professional development. Furthermore, I believe that my dual identity has given me an edge in how I engaged with my participants as I had the ability to act as both insider and outsider within my study (Kindon et al., 2007). In detail, I was considered as an insider due to the fact that I am a special education teacher myself and I shared a connection and mutual understanding of the context and its restraints with my participants. This, I believe, further encouraged the participating teachers to commit to my study and feel confident in discussing their teaching practices with me. I was also able to act as an outsider as I was a researcher who came in with an inventory of research skills which allowed for an added distinct

dimension to how I interpreted my data.

Acknowledging that my research would effectively take an interpretative approach, I found myself agreeing with Stenhouse (1975) who argues in defence of projects by teacher-researchers, that:

> *We are concerned with the development of a sensitive and self-critical subjective perspective and not with an aspiration towards an unattainable objectivity* (Stenhouse, 1975: 157).

There are researchers who argue that without detachment, research cannot be effective (Peeke, 1984), however Elliott claims that working *"collaboratively and dialogically with teachers through projects and courses to effect educationally worthwhile changes in their classrooms"* (2006: 170) allows for new possibilities of research. Kagan (1988) also argues that without subjectivity and personal perception, the heart and uniqueness of the context being explored is lost. Moustakas (1990) characterises this situation as heuristics, acknowledging the vital importance of the researcher being part of the research data. This promotes an in-depth understanding of the phenomenon being explored, whilst the researcher experiences creative and self-directed interpretation of the phenomenon with expanding self-awareness and reflection. Appreciating the research inquiry as having fluid boundaries whilst accepting that the researcher's self is part of the process along with the participants, allows for the research design to not be confined into predetermined blueprints but to gradually be redefined as necessary (Bassey, 1992). Characterising my research journey in this way, allows for full immersion and reflection in and on the data collected, contemplation of the existing literature and methodological issues leading to professional and personal development both for the participating teachers as well as myself fulfilling both the role of teacher and researcher.

Inter-linked with the issue of positionality and locating the self within research, is the issue of dynamics of power and emotions, especially during the interviews. According to Edwards and Holland (2013) the researcher delineates and controls the topic under consideration with the aim of co-generating meaning with the

participants, eliciting their experiences, views, perceptions and feelings. In doing so, researchers find themselves in a position of power as they purposefully try to generate an atmosphere of trust as well as applying interview techniques, such as probing, in order to generate data (Edwards & Holland, 2013). On the other hand, however, this power is not symmetrical as researchers have an emotional interdependency with the participants, as their responses and reactions (recorded through the interviews and diary entries and observed during the classroom observations for my study), can elicit specific emotions for the researcher, especially when data collection involves sensitive and personal matters (Takhar, 2009). In addition, the power of knowledge in terms of who is the expert and who is the knowledge seeker seems to constantly shift during the research process, as on occasions the researcher might be the seeker who seeks truth and knowledge from the participants who are the experts within their context (Hoffman, 2007). In the context of my research, I acknowledge that I might be in a position of relative power, given that I approach the teachers as an academic researcher and enter their classrooms in order to explore (with their cooperation) a specific topic within their situated context. However, concurring with Payne (2006), I believe that society and life in general consists of unavoidable hierarchies and ongoing dynamics of power. What is important is that myself as a researcher, pays attention to these dynamics as I am aware about ethics during my research process and consciously try not to exercise power onto my participants in any harmful or unethical manner, maintaining the sense of trust and comfort during the process.

5.4.4 Trustworthiness and validity

Having established early on that my research would follow an interpretative route, I was aware that the issue of accountability and reliability of the data collected could cast doubts as to the validity of my research. Goodman (1983), Kvale (1989), Lincoln and Guba (1985) and Mishler (1990) have argued that the issue of validation should be considered and moved away from validation into *"experiment-based criteria"* (Mishler, 1990: 416) to focus on alternative aspects such as trustworthiness that *"displaces validation from its traditional location in a presumably objective, nonreactive and neutral reality, and moves it to the social world – a world constructed in and through our discourse and actions, through praxis"* (Mishler, 1990: 420).

Aligning with Lincoln and Guba (1985), I consider that research validity can be usefully regarded as having internal validity, better characterised as trustworthiness, and external validity, characterised as transferability. Internal validity (trustworthiness) is seen as exploring whether the implementation of an intervention results in change. External validity (transferability) is considered in terms of whether the conclusions could be generalised (Lincoln & Guba, 1985). I argue that my research, as any action research project, has internal validity whilst external validity is less relevant. This stems from the fact that my personal perspective in the interpretation of the research findings cannot be eliminated; that the data collection and analysis could be regarded as subjective by nature; that my research uses a small study population and is situated and relevant only to the context that it explores. The relevance of the external validity is reduced due to the fact that my research does not use a large or random study population to establish transferability and generalisability of results nor it was my intention to generalise across different contexts and people. However, I do hope that its findings will have some usefulness.

For transparency, clarity and in an effort to offer an additional layer of validity to my work, I tried to be systematic, articulate and offer a clear and visible picture of my research journey presenting an explicit theoretical background and providing critical detail and explanation for the methodology, data collection and analysis. Throughout my thesis and description of my study, I exercised scrupulousness and was conscientious and meticulous in my description of how I handled my data to elicit responses to my research questions and draw conclusions. I have acknowledged and tried to conform to the criteria for establishing validity of action research projects discussed by Heikkinen et al. (2007) and Feldman (2007) to ensure that data collection, analysis and description is managed in a precise, consistent and methodical manner.

5.5 Conclusion

In this chapter I have engaged in a critical discussion of my research process, from its inception to its implementation and analysis. I have justified the selection of the methodological framework of collaborative action research and have explained why

I believe qualitative data collection and analysis is best suited to explore my research questions and fulfil my research aims and intentions. I have tried to be explicit and methodical as to all decisions made and the process I followed, to allow for internal validity and reliability of my research (Kagan, 1988). I have also attempted to detail the ethical considerations pertaining to my research and tried to locate my role within the research. I have tried to exercise reflection, honesty and integrity throughout the process and I hope that I have succeeded in portraying an accurate and holistic picture of my participants' personal experiences and life stories within their situated realities, for exploring the use of graphic organisers in their withdrawal classrooms.

In the chapter that follows I provide a detailed account of the three episodes of my data collection. The chapter includes a description of the observed lessons and the interviews with my participants. Each interview is also visually presented with a graphic organiser designed by myself. This was done in an effort to illustrate the development of thought and change for each of the participants throughout their journey.

Chapter 6: Descriptive Account of the Study

6.1 Introduction

In this chapter, I give an account of the fifteen lessons I observed and the subsequent interviews with the teachers. I believe that such an account provides the necessary framework through which to critically discuss, explore and evaluate the findings of my study, in relation to my research questions, presented in the following chapter. My intention here is to highlight the differentiated nature of the situated realities of each of the five special education teachers that participated in my research. There is no one "typical category" of teachers and by looking at each participant individually I want to highlight the complexity of their unique personalities, identities and situated contexts.

This chapter takes the form of a series of sequential episodes presented in chronological order for each of the five participants, the *characters*. Each episode is an independent unit with independent content and progression. Each episode begins with a description of the lesson plan, including the learning aims, teaching methods employed and teaching material utilised as well as the type of graphic organiser included in each lesson. In this way, the *context* of the episode is established. Copies of the teaching material and the graphic organiser produced for each of the lessons are included in the appendices (15-29).

Following this, the *plot*, a summary of the interview is provided. Although, this presentation is not the full transcription (undertaken in Greek) or a full account of all emergent concepts, it highlights some of the main ideas that were discussed during each of the interviews, that consequently formed the main themes following data analysis and coding. With the permission of the participants, the written summaries include direct quotations from the interviews (translated in English) in italics to emphasise specific issues discussed.

Finally, an *illustration* is provided to show the *meaning* of each episode in the form of a graphic organiser that was created by myself for each interview serving as an alternative way of presenting the discussion. Each graphic organiser illustrates the

extent of the interview, being more descriptive than the accompanying written summary. This visual representation of the interviews shows the interrelation of the concepts and specifically the arguments, thinking processes and developments of each teacher throughout this research journey. An additional reason for using graphic organisers is that I believe that this method is an alternative and innovative way of presenting research data, especially interview transcriptions. I use a different type of graphic organiser for each of the teachers to demonstrate the variability, fluidity and flexibility of their design and use.

The presentational approach I use in this chapter, was influenced by a flexible interpretation and adaptation of two theories: the use of exemplars (Kuhn, 1970) and the use of vignettes (Finch, 1987). Exemplars are seen as providing an example of collected data serving as explication of how observed events are transformed into data and eventually findings (Kuhn, 1970). Vignettes are short stories (episodes) under the specific circumstances that are under investigation (Finch, 1987). Each of these approaches emphasises the need to display the texts upon which the analysis is based, introducing an element of consistency. This is done in order to elucidate the source of data and the relationships between the data and bring forth the emerging codes and themes that are analysed and interpreted for conclusions to be drawn. Acknowledging that one of the main issues pertaining to action research is its validity (chapter 5), I argue that internal validity or trustworthiness (Lincoln & Guba, 1985) is critical for my research. By providing a *"codable image"* (Stewart et al., 1988: 57) in the form of episodes as a unit of analysis, followed by graphic organisers illustrating the creation and overall expansion and development of the codes and their categories, the reader is in a better position to explore the link between the data and their interpretation by myself, thus achieving a level of trustworthiness.

Table 6.1 below provides the profile of each teacher and student *(characters)* as well as the profile of the schools and the withdrawal classrooms *(setting)*. As discussed in the Ethics section in chapter 5 (section 5.4), pseudonyms are used for the teachers and students whilst the schools are not named at any point in my thesis, to ensure confidentiality and anonymity for my participants.

Table 6.1: Profiles of the characters and setting

Pseudonyms of Teachers	Teacher Profile	Student Profile	School Profile	Withdrawal Classroom Profile
Artemis	Special Education Teacher Teaching Experience: 6 years in various teaching institutions, including 3 years in special schools and 3 years in withdrawal classrooms. During my study, Artemis was the special education teacher leading the withdrawal classroom in a primary school in Paphos district. This school was her base, where she would spend most of her time, but she was also required to attend two neighbouring schools for four 35minute teaching periods a week. She taught 12 students in total. Artemis had participated in the Pilot Study.	Girl – 10 years old attending third grade Her official assessment was Student with Reading Difficulties. She attended the withdrawal classroom twice a week. Her time with Artemis was usually split between working on Modern Greek (Reading, Reading Comprehension, Grammar and Syntax) for one teaching period (35minutes) and the other teaching period was devoted to Maths.	The school was a newly built school, with state of the art teaching equipment, providing modern work spaces for the students as well as the teachers.	A spacious classroom with natural light. The majority of teaching sessions were carried out on two desks located in the middle of the classroom in a Γ shape, with the teacher and student occupying one desk each.

Hestia	Special Education Teacher Teaching Experience: 8 years, all in withdrawal classrooms. During my study, Hestia was the special education teacher leading the withdrawal classrooms in four different primary schools in Limassol district. Her teaching time was split between the four schools. She taught 10 students in total. Hestia had participated in the Pilot Study.	Girl – 10 years old attending third grade Her official assessment was Student with Reading Difficulties. She attended the withdrawal classroom twice a week. Her time with Hestia was usually spent on working on Modern Greek (Reading, Reading Comprehension, Grammar and Syntax).	An old school built in the 1960s with basic specification.	The withdrawal classroom was also used as the office for the visiting health care assistant. A small room with one table, where all teaching sessions took place at one end, and an examination bed for the health care assistant's work at the other end.
Athena	Special Education Teacher Teaching Experience: 5 years, all in withdrawal classrooms. During my study, Athena was the special education teacher leading the withdrawal classrooms in seven different primary schools in Nicosia and Larnaca districts. Her teaching time was split between the seven schools. She taught 14 students in total.	Boy– 10 years old attending third grade. His official assessment was Student with Reading Difficulties. He attended the withdrawal classroom once a week for three consecutive teaching periods. His time with Athena was usually spent on working on Modern Greek (Reading, Reading Comprehension, Grammar and Syntax).	An old school built in the 1960s with basic specification.	The withdrawal classroom was also used as an art and music classroom. The teaching sessions were carried out on two desks located in the middle of the classroom next to each other, with the teacher and student occupying one desk each.

Hera	Special Education Teacher Teaching Experience: 14 years, all in withdrawal classrooms. During my study, Hera was the special education teacher leading the withdrawal classroom in one primary school in Nicosia district. She taught 14 students in total.	Boy– 10 years old attending third grade His official assessment was Student with Reading Difficulties. He attended the withdrawal classroom three times a week. His time with Hera was usually spent on working on Modern Greek (Reading, Reading Comprehension, Grammar and Syntax).	A modern school built in the 1990s.	A spacious classroom with natural light. The majority of teaching sessions were carried out in the middle of the classroom where two desks were located facing each other.
Demetra	Special Education Teacher Teaching Experience: 15 years, in both special schools and withdrawal classrooms. During my study, Demetra was the special education teacher leading the withdrawal classroom in one primary school in Nicosia district. She taught 14 students in total.	Boy– 10 years old attending third grade His official assessment was Student with Reading Difficulties. He attended the withdrawal classroom four times a week. His time with Demetra was usually spent on working on Modern Greek (Reading, Reading Comprehension, Grammar and Syntax).	An old school built in the 1960s with basic specification.	A small classroom with natural light. The majority of teaching sessions were carried out in the middle of the classroom whereby teacher and students were facing each other.

6.2 Artemis

6.2.1 First episode

6.2.1.1 Lesson (Appendix 15)

During this lesson, Artemis was interested in reading comprehension and a review of past-present-future tenses. She selected a text derived from the third-grade textbook. Its title was "Unforgettable Birthday" and it was a story about a girl who was planning her upcoming birthday party with her family, which was considered to be a familiar and relatable subject for the student.

In terms of the flow of the lesson, Artemis initiated the lesson by asking the student to read the text twice aloud. Following this, she asked the student to respond to written open ended questions whilst she introduced a graphic organiser she prepared summarising the text. She did not give any specific instructions to the student pertaining the functionality and use of the graphic organiser. On this occasion, the graphic organiser can be seen as a scaffolding aid, supplementing the text (Ponce et al., 2012). At the end of the lesson she asked the student to orally retell the story. Notably, Artemis did not use the whiteboard or a computer during the lesson.

6.2.1.2 Interview

Graphic Organiser 6.1 illustrates the main concepts and issues discussed during the first interview. Artemis acknowledged the use of graphic organisers as an aid for the student illustrating the key information from a text, but also as having the potential to be used as a strategy by the students themselves. Artemis discussed her concerns that students experiencing reading difficulties needed to develop their own strategies as they would not have any additional one-to-one support in their future steps in education. She stated that despite the need for extra effort on her part and the fact that graphic organisers are time-consuming to prepare, their benefits outweigh this cost.

Artemis also expressed her belief in how effective the use of graphic organisers would be if these were designed by the students rather than their teachers. This

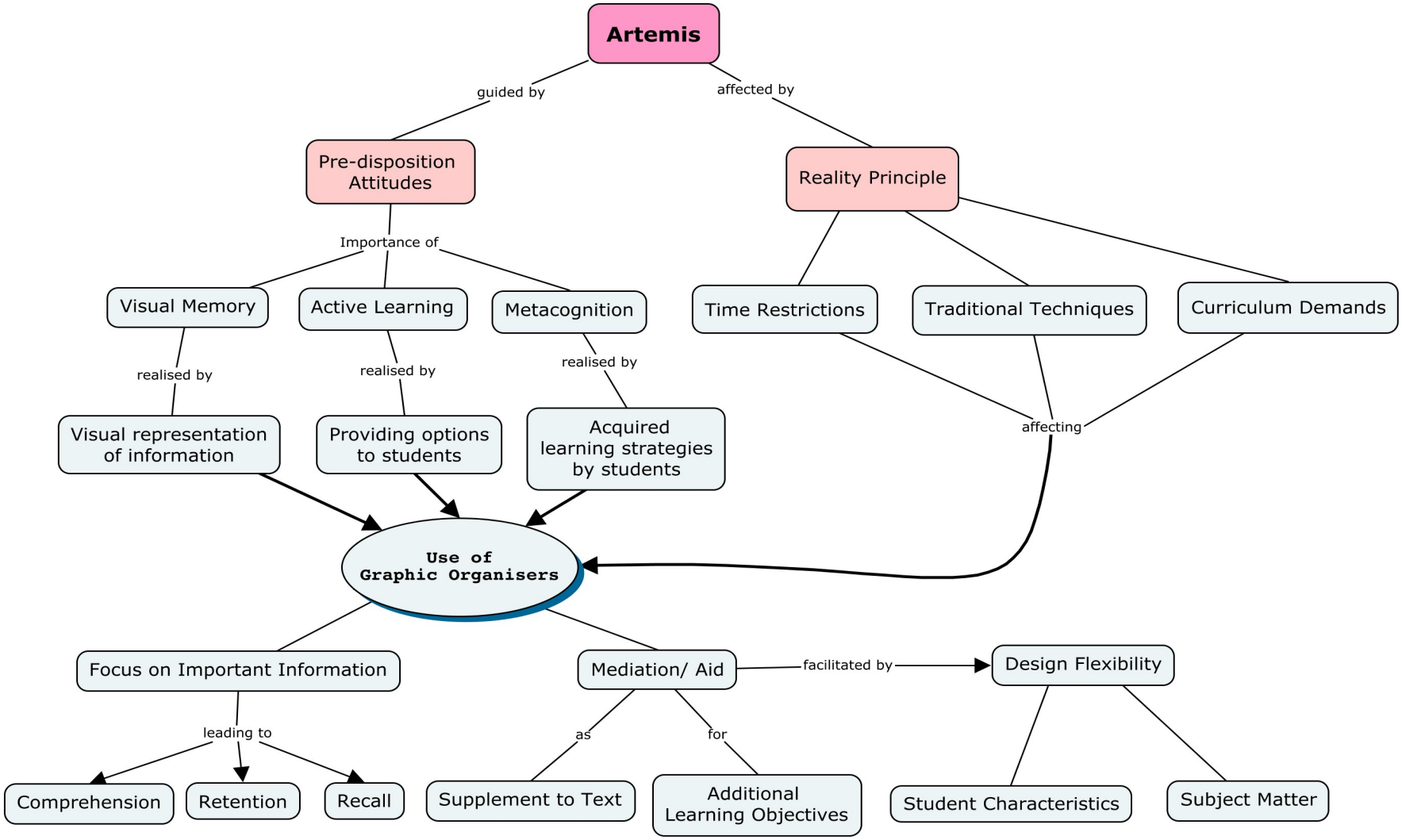
idea finds support in existing literature by authors such as Kirschner et al. (2006) who argue that such an activity can be a constructive learning event for the student.

One element of this interview that struck me, and I also encountered during the interviews with the other participants (for example Hera), was that there was a recognition of the appeal of using innovation in classrooms such as computers or interactive whiteboards. However, Artemis argued that these devices are *"a utopia"* for schools given the limited time that students spend in her classroom as well as curriculum targets that need to be met, and do not allow for much experimentation. Artemis argued that providing everything on paper is outdated, given that nowadays students receive information via a variety of channels that were not available in the past. She highlighted, however, that traditional teaching methods and tools could never be obsolete, given the necessity for students to learn how to read and write on paper. She suggested that the way forward is combining new tools and ideas with traditional methods to enhance the student experience in the classroom.

Artemis stressed that one obligation she has as a teacher is to provide various options to her students for them to choose which option they thought was most helpful for their learning. A sense of duty to prepare the student as an independent and active learner who has adopted learning strategies, is a key feature in many of my participants' interviews. When I asked her to justify her reasoning, Artemis argued that by not forcing the students to follow one specific option, promoted independent learning and that she believed that visual stimuli had a role to play in enhancing student motivation and interest, especially students with reading difficulties.

> *"My teaching experience in various special education forms, has shown that a visual representation of the information that we request for our students to learn is extremely necessary".*

Graphic Organiser 6.1: Artemis – First episode – Interview presentation



6.2.2 Second episode

6.2.2.1 Lesson (Appendix 16)

The theme of the lesson was Emotional Intelligence and Development. Artemis did not use any text for this lesson, choosing to work with word cards instead. The lesson was based on the development of word maps following discussion with the student on the subject of feelings and emotions triggered by various situations and events of everyday life. This was the only lesson that I observed during my research where a teacher did not use an overall lesson theme derived from the school textbooks.

The lesson was divided in three parts. The first part was focused on recognising and naming different emotions and splitting the word cards into groups. The second part was based on a written exercise whereby the student was requested to write and refer to situations that trigger various emotions. The third part involved the creation of a spider map; a type of graphic organiser. The spider map was filled in by the student with assistance and feedback from Artemis. The theme of the spider map was the triggering of emotions by various daily activities. Artemis encouraged the student to use colour when filling in the concept boxes, using colours that the student felt matched each emotion included on the spider map.

6.2.2.2 Interview

The second interview mainly focused on a teacher's sense of duty as motivation to experiment and how this was realised through the use of graphic organisers and their benefits for students (Graphic Organiser 6.2). The theme of duty is a key feature in many of my participants' reasons for choosing to experiment in their teaching, highlighting the importance of pre-dispositional beliefs in influencing teaching practices. Artemis considered that the use of graphic organisers motivated her to keep trying to fulfil her role as a teacher and reinforced her "*sense of duty*" towards her students. She stated that when she saw the *"spark in their eyes"* and their responsiveness to tasks that incorporated graphic organisers it encouraged her to experiment with their use and *"move away from the safe and easy"*. Artemis expressed her belief that more traditional forms of teaching are not as successful in sustaining students' interest. She said that when this happens, the teacher feels disappointed and that they have failed their students.

Artemis also concluded that familiarity with graphic organisers and their flexibility, resulted in awakening her creativity and confidence. Indeed, this concurs with existing literature. Routman (2002) argued that creativity is important for the development of the teacher as a whole and this is promoted through self-reflection.

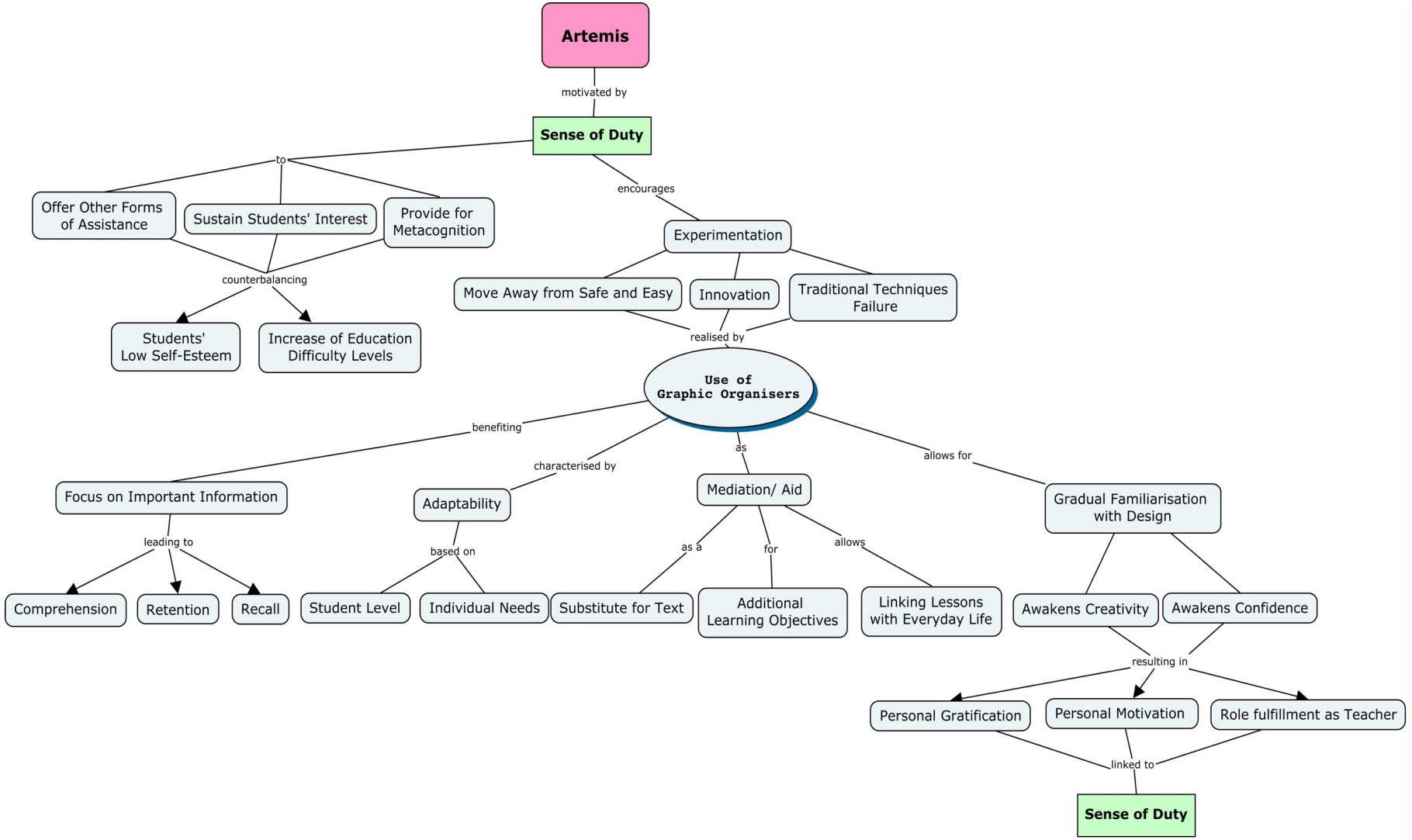
> *"You know what? Having used graphic organisers a couple of times now, I feel more confident in being creative with my teaching material. I would have never thought in the past to ask the student to create a spider map of emotions! I would have simply asked them to write down the emotions in a paragraph or something".*

She also focused on her belief that students who experience difficulties with their learning can easily become *"lost"* in text, especially when the reading material becomes more complicated. As I will discuss further in chapter 7, this is a comment that was frequently repeated by all participants. Artemis evaluated graphic organisers as a significant aid, presented alongside a text to support the student in comprehending, retaining important information and retelling when necessary. It could be suggested, therefore, that the graphic organiser works as a scaffolding aid, as content-enhancement (Ciullo & Reutebuch, 2013) and indeed as I will discuss in the next chapter, from the overall eighteen graphic organisers used in my study, twelve were placed as supplements to written text.

I was intrigued as to why she used Emotional Intelligence as the theme of her lesson and I asked her to elaborate on this. Artemis highlighted that the time spent in withdrawal classrooms could become *"boring"* for the students and needs to also discuss wider matters such as Emotional Intelligence that concern students.

> *"Being able to focus on such issues and train the student to be tuned with their emotions, which I believe is an important life skill especially for students with learning difficulties who are often faced with alienating reactions by society, in such a different and fun way as creating a colourful map, makes the one-to-one lesson more valuable".*

Graphic Organiser 6.2: Artemis – Second episode – Interview presentation



6.2.3 Third episode

6.2.3.1 Lesson (Appendix 17)

For this last lesson I observed with Artemis, she decided to follow a similar structure as the first lesson. As I understood from my conversations with her, Artemis seemed to base the majority of her lessons on this structure. Therefore, the learning objectives set out for this lesson were reading comprehension and a review of spelling of verbs. The text selected was derived from the third grade textbook. Its title was "My Little Brother" and it was a story about a girl who describes her conversations with her little brother and their dreams for the future.

Artemis uses the following teaching techniques in her lesson plan: a) reading aloud; b) verbal comprehension questions; c) oral retelling of the story by the student. She decided to introduce one graphic organiser in this session. However, instead of this being used to present the key elements of the story they read, the graphic organiser consisted of spelling rules and exceptions for verbs ending in the present tense, active voice, using words and sentences from the story they read. It was introduced immediately after reading the text and prior to proceeding with written grammar tasks. The lesson ended with retelling of the story by the student after Artemis posed some verbal comprehension questions.

6.2.3.2 Interview

The final Graphic Organiser 6.3, which is far more elaborate, illustrates how Artemis's thinking evolved over the year. Discussing the benefits of using graphic organisers, Artemis outlined that overall the perceived benefits of using graphic organisers during her lessons are: "*The student is not lost in a text", "visual presentation facilitating comprehension and retention of information"* and *"flexibility in its design to fit the individual needs of the student"*

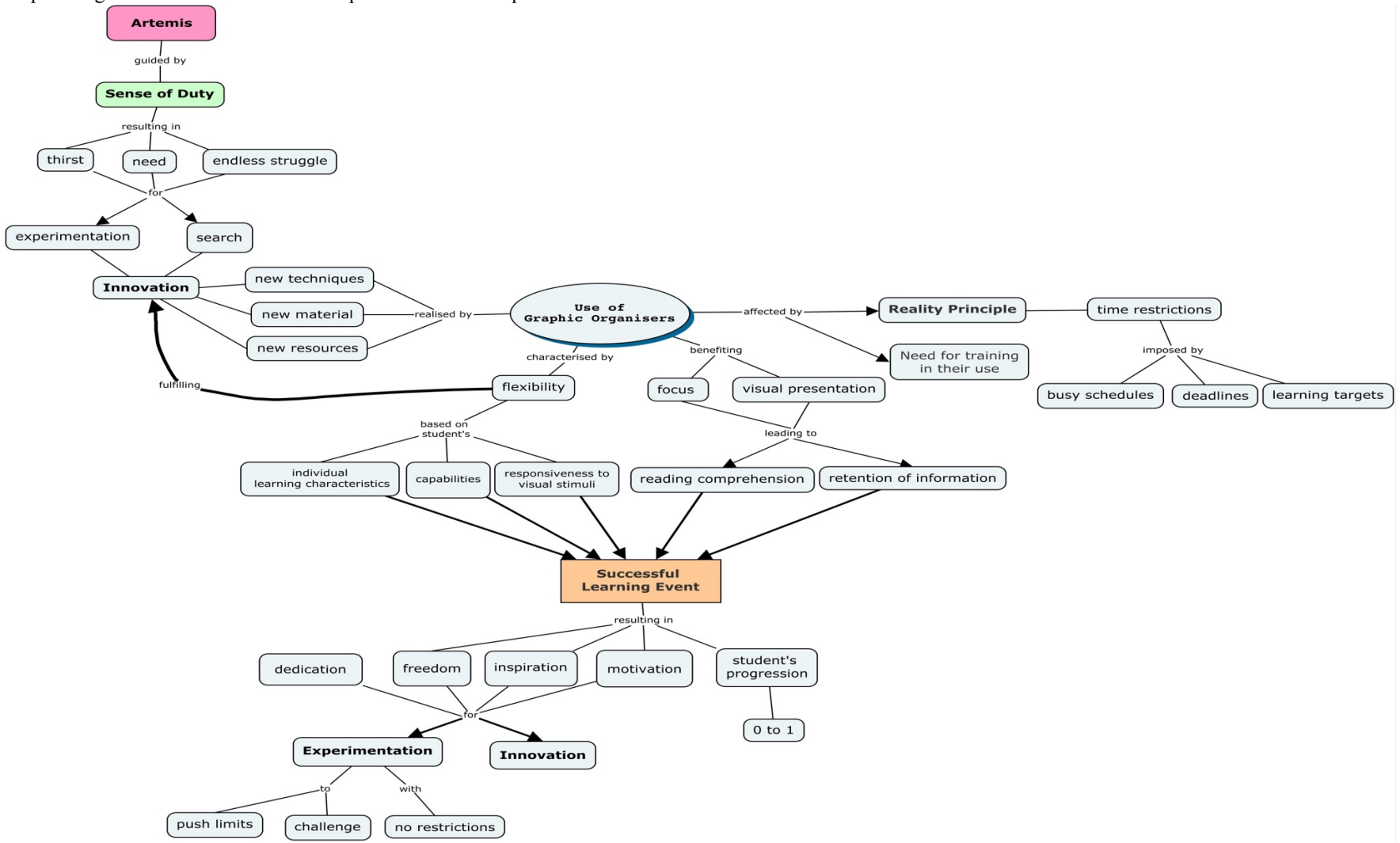
Artemis stated that their applicability and the success of their incorporation was dependent on the individual learning characteristics of the student and whether they were responsive to visual stimuli. She reported that she would not attempt to introduce graphic organisers to students who were more responsive to auditory stimuli.

Asked how she felt seeing the success of using graphic organisers, Artemis focused on how pleased she felt when her students seemed to progress *"from 0 to 1"*. The students' responses motivated her to keep trying and searching for *"innovative material"* that she could use in her teaching. Towards the end of the interview Artemis said that the freedom allowed for in this project had given her a *"truly invaluable opportunity to experiment with graphic organisers without restrictions and fully explore their applicability in my classroom"*. She predicted that if the project involved demonstrating how graphic organisers could be used in the classroom by myself as a researcher it would not have been as effective and meaningful to her as a teacher. She emphasised that teachers develop their teaching techniques by experimenting, by trial and error. She felt that when someone imposes something on them it is not as beneficial. She concluded by saying that her participation in the project allowed for ample experimentation and innovation, that "*motivated and inspired"* her. She characterised the project as an *"interesting challenge"* that she gladly took on to *"push her limits as a teacher"*. Certainly Artemis placed great importance on the value of intrinsic (emotional) factors that affect whether she experiments in her classroom and this is a theme to which she frequently referred to in her interview. However, she also talked about her concerns as a special education teacher. She noted that special education teachers do not have *"the luxury"* of books, materials and resources provided to them, as is common with teachers in mainstream classrooms. Special education teachers have *"a thirst and a need"* to explore new techniques, new materials, new resources that could be useful in their classrooms.

Her final remark was:

> "*Thank you for approaching me. Our struggle as special education teachers who only perform one-to-one lessons is endless. We cannot afford for our students to lose interest or feel de-motivated. We keep searching and searching for something new. Something new that could work, something that could be adapted based on our children's needs. Projects like this, whereby everyday action is totally controlled by the teachers themselves is what is needed for us- a gentle push encouraging experimentation"*.

Graphic Organiser 6.3: Artemis – Third episode – Interview presentation



6.3 Hestia

6.3.1 First episode

6.3.1.1 Lesson (Appendix 18)

For the first two lessons I observed, Hestia set the same learning objective; reading comprehension. This is because she initially thought that this could have been the only way graphic organisers may have had an effect. It was only after she experimented with their use as a writing prompt (lesson 3 below) that she altered her learning objectives.

For this first lesson, she used a text from the third grade textbook. Its title was "The acrobats of the seas" and it was a story about dolphins, their lives and why they are in danger due to human intervention. The flow of the lesson was sequential with the student reading aloud the text once and then Hestia posing comprehension questions. Thereafter, they revisited the text and at that point she introduced a graphic organiser on the computer that was located in their classroom, before the student answered any written reading comprehension questions or retold the text. The introduction of the graphic organiser was initiated by Hestia commenting that it should make understanding the text and retaining important information easier. She did not give any specific guidance as to the use of the graphic organiser, but she assisted the student with reading it. On this occasion, the graphic organiser was used as a scaffolding aid, supplementing the text.

6.3.1.2 Interview

During the interview Hestia expressed her disappointment and reservations as she felt that the organiser did not have any effect on the student's performance during this first lesson (Graphic Organiser 6.4). Hestia said that she expected the student to be more confident and do better in the written questions following the presentation of the graphic organiser. She remained puzzled throughout the interview about what she saw as low performance of her student, as they were a visual learner and the graphic organiser should have helped. Hestia seemed distracted during the interview and she kept returning to this issue, dissecting the lesson and reflecting on her actions and the performance of her student. This practice is an illustration of how important self-reflection is for teachers who want to make a difference to children

and want their work to have an effect. This is a perspective that all my participants had.

She thought that one of the reasons behind the student's hesitation to answer questions and needing to take more time than usual, may have been because the student did not feel comfortable with my presence in the classroom. To test her theory, Hestia proposed to continue using graphic organisers on a regular basis when she was alone with the student to see whether there was a better performance.

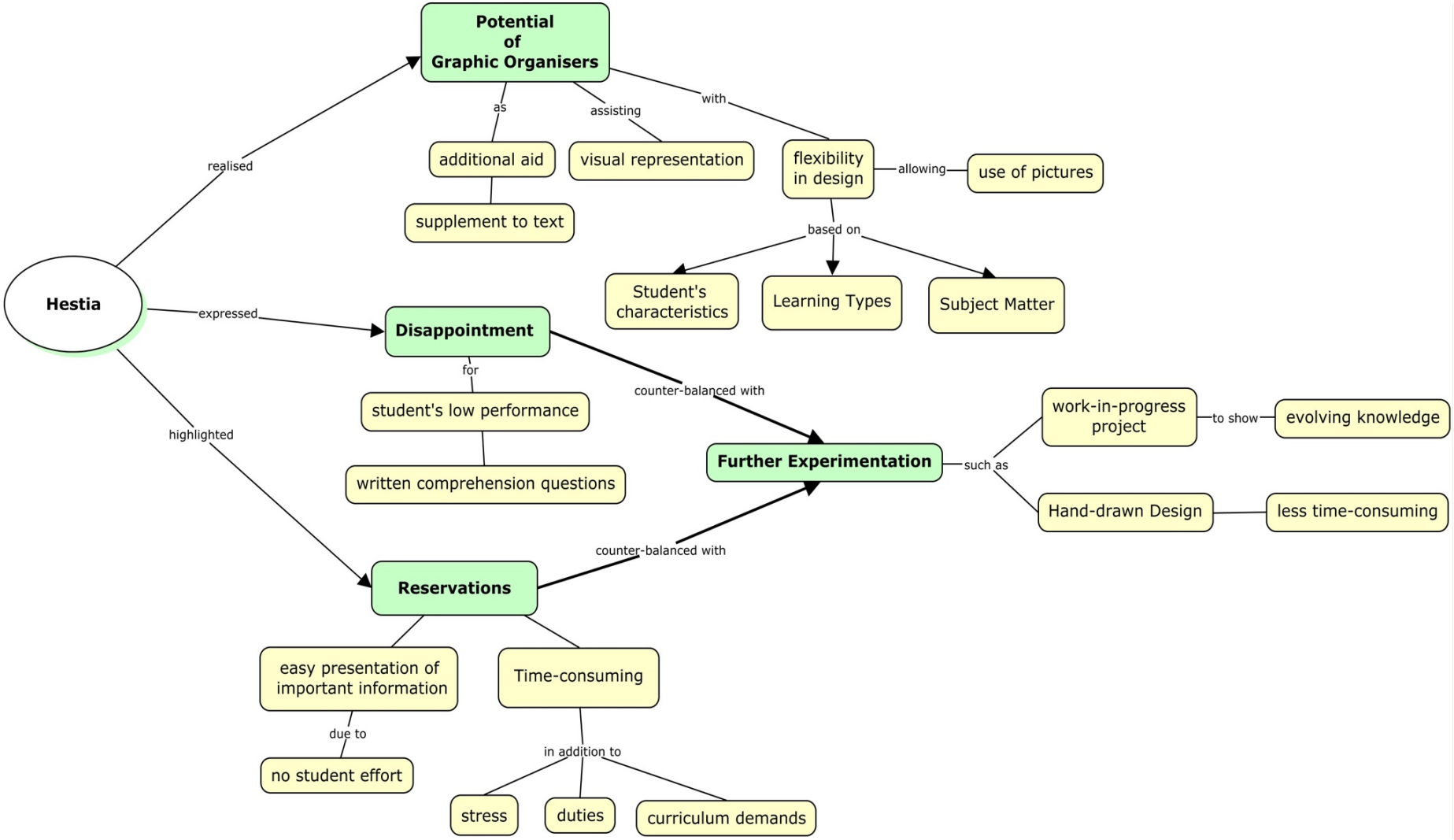
> *"I am puzzled by her performance today as I believe she would be helped by presenting the graphic organiser on the computer screen whereby the information is presented clearly in front of her. She is a shy student though and maybe she didn't feel comfortable with you being in the room. I will use it again at our next lesson together and see if she does better".*

She also stated that she wanted to do some more research on the issue of whether it is appropriate *"to serve the important information on a plate"* with a graphic organiser without the student contributing to its creation.

> *"Is it appropriate to blatantly and effortlessly present the information to the student? I am not sure".*

Asked whether she would continue to use graphic organisers, Hestia said that even though she could see the potential and flexibility of graphic organisers as an aid, she would struggle to use it consistently due to the time-consuming preparation that its design had entailed. She commented that her weekly duties include visiting four different schools which is tiring and stressful. She recognised that in time the designing of a graphic organiser would become easier due to familiarisation and *"it is not difficult, just a bit time-consuming".* She also said that she did not have time to design a graphic organiser during school hours, as in-between classes she had to travel to her other schools. All participants discussed practical issues like this, which has led to a large set of data indicating the effect of such realities on teachers' work, a concern that is also highlighted in existing literature (Ball et al., 2012).

Graphic Organiser 6.4: Hestia – First episode – Interview presentation



6.3.2 Second episode

6.3.2.1 Lesson (Appendix 19)

As I mentioned earlier, Hestia based the first two lessons I observed on the same structure, setting similar learning objectives, being reading comprehension and retention of main ideas. For this second lesson, the text selected was again derived from the third grade textbook. Its title was "The selfish giant", and it was a story about a giant who had a beautiful garden in front of his house but had forbidden children to play in it, which resulted in the garden losing its beauty.

Hestia also used the same teaching techniques as her first lesson, i.e. reading aloud and written reading comprehension questions. The graphic organiser was introduced following reading the text, but before any reading comprehension questions. The graphic organiser was used as a scaffolding aid, supplementing the text. Hestia also introduced a written exercise towards the end of the lesson asking the student to write a different ending to the story asking them to be creative.

6.3.2.2 Interview

Graphic Organiser 6.5 shows how Hestia's approach had evolved from her discussing negative reservations and concerns as to the use of graphic organisers that dominated the first interview, to a more in-depth reflection of more intrinsic elements and how these were reflected in her participation in my study and her experimentation with graphic organisers.

When asked to elaborate on the lesson I observed, rather than doing so, Hestia discussed how she experimented with the use of graphic organisers by using them to assist the student to write short essays in other lessons. Her feeling of achievement because of her resilience and persistence in not giving up on this tool was emanating from her during the interview. It could be argued that her commitment to the students reflects her core pre-dispositional beliefs of how important it is to focus on experimenting with various teaching tools.

She explained that by using graphic organisers to assist with written exercises she could support her students to work effectively on their own. She noted that her student seemed more confident to write an essay with the graphic organiser next

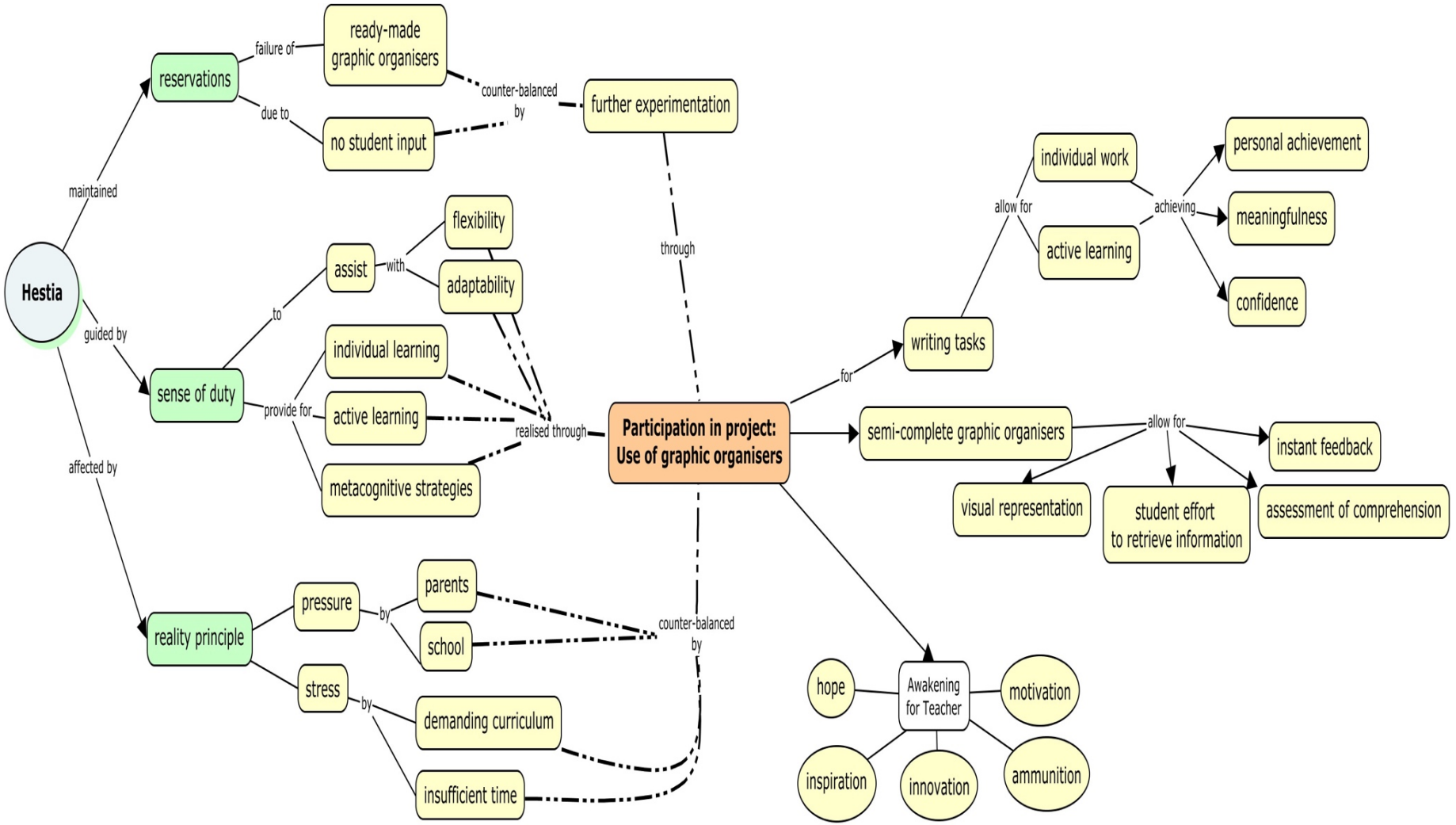
to them. This realisation boosted her confidence and made her feel she was *"offering something meaningful to the student"* and that this was *"truly motivational for a teacher"*. She assessed that it was evident from the student's reaction that they had a feeling of personal achievement and were able to say that they did something on their own without constant input from the teacher. She specifically commented that *"their look was priceless! I could see they felt confident as they wrote something without my constant help. I was touched by their reaction"*.

Hestia also argued that seeing the successful application of graphic organisers in writing essays, her next aim was to use incomplete graphic organisers. Having successfully applied graphic organisers encouraged her to experiment more with them. This reflects the argument that student-oriented factors, such as positive student feedback and reaction, play an important role affecting the use of differentiated teaching approaches (Loizou, 2016). Such student-oriented factors were noted by all my participants.

As per the other participants, Hestia discussed practical issues that affected her work. Her feeling of anguish and stress levels were tangible during the interview. She commented that special education teachers are under a lot of pressure from stakeholders (parents, school, Ministry of Education), and that insufficient time was a major obstacle for special education teachers. When a teacher wanted to incorporate something innovative or new in their lesson it felt like *"fitting a camel through a needle's eye"*. She elaborated that this issue was very stressful for her, as she believed that change should be implemented from *"the top of the pyramid"*, i.e. the Ministry of Education, as teachers were not left with any time or space in the curriculum to be creative.

Hestia argued that she was grateful for the project as it gave her *"ammunition"* to experiment and try to incorporate the use of graphic organisers in other aspects of her work, such as development of writing skills, commenting that *"all in all, participating in this project proved to be an interesting and meaningful experience, for restoring hope"*.

Graphic Organiser 6.5: Hestia – Second episode – Interview presentation



6.3.3 Third episode

6.3.3.1 Lesson (Appendix 20)

The last lesson I observed was completely different from the first two. Having reported to me during her second interview (second episode above) that she was excited to see that graphic organisers were effective as a writing prompt for the student to write short essays, she wanted me to see first-hand how this use was established. Thus, focusing on the development of writing skills for the student, Hestia's aim for that day was for the student to write a short story out of six pictures provided to them.

The graphic organiser was created following the presentation of the pictures and an initial discussion as to what they depict. During this episode, the graphic organiser was used as a substitute for text. I also noted that the instructions for the short story writing task were also presented in the form of a graphic organiser.

6.3.3.2 Interview

During her third interview (Graphic Organiser 6.6) Hestia elaborated in greater detail on all issues we discussed during the first two interviews. First, having already discussed the potential of graphic organisers as a writing prompt, Hestia said that it was important for her to have discovered this use of graphic organisers in assisting with development of writing skills. She said that every time she used a graphic organiser towards this specific learning objective, she was getting more excited as she noted positive impacts on students' confidence and motivation.

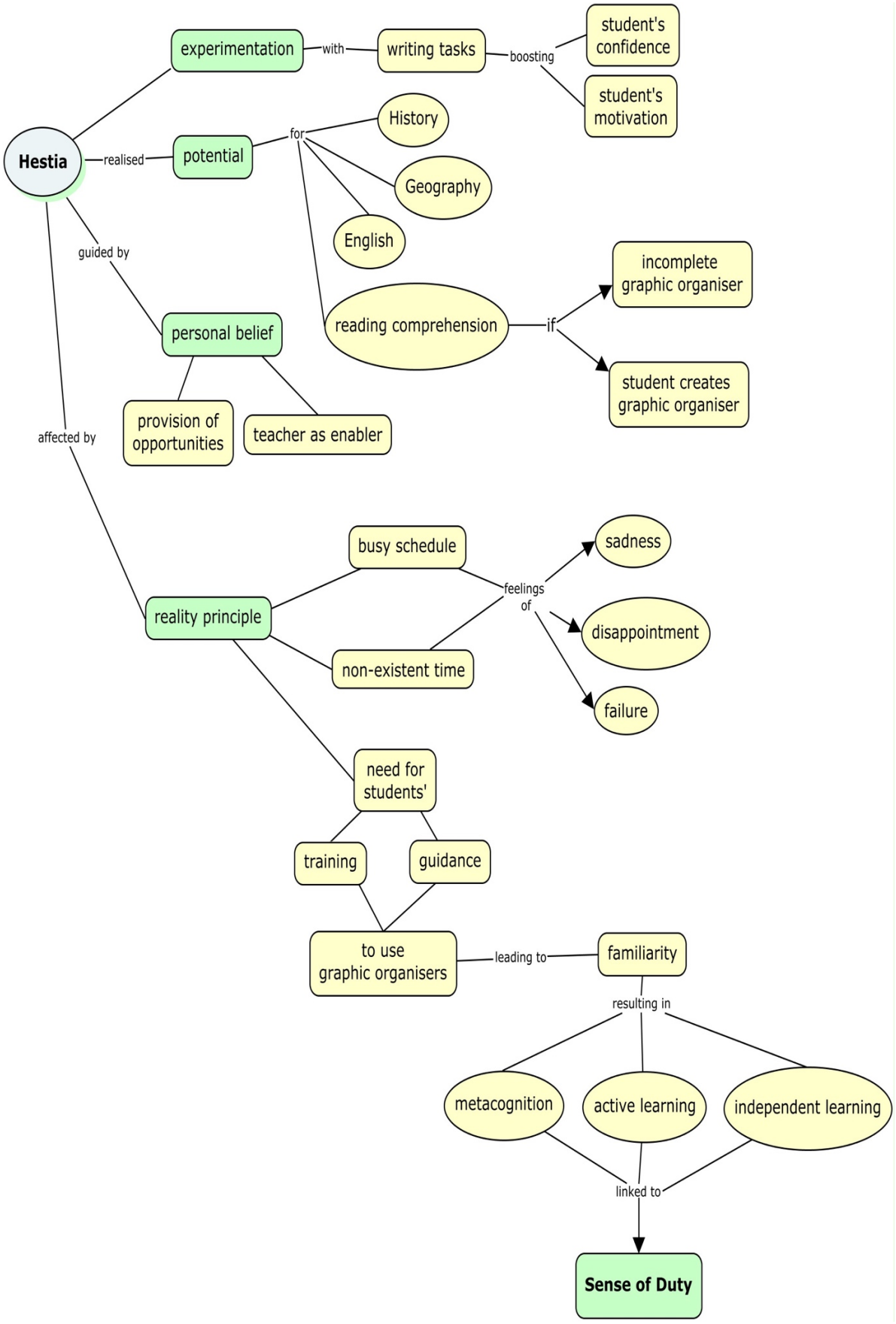
> *"I wanted you to see first-hand how using graphic organisers could be used as a guide for writing essays. I know when we first started this project I seemed to focus on reading comprehension as it made sense that the students could benefit from seeing the information visually, even though I still have reservations if providing a complete graphic organiser is beneficial, however, I wanted to experiment and it paid off. My students can write an essay, even if it is just a small paragraph it is still more than what they used to write. It goes to show you how exciting experimentation with something new can be".*

I asked her to elaborate on the reservations she had outlined in earlier interviews, and she argued that students needed training and guidance in using graphic organisers but when they familiarised themselves with their use, it could be beneficial for their individual active and independent learning. She reiterated that she believed that the most beneficial use of graphic organisers when used for reading comprehension was to create one with the student from scratch or alternatively provide the student with an incomplete organiser to fill in.

From her comments, it was evident that Hestia encountered an array of problems every day, from dealing with ten students in four different schools every week to balancing the demands of the curriculum with her busy schedule. She found it stressful to experiment whilst trying to *"do a good job"* and being the *"good teacher she is expected to be"*. This emotional distress faced by teachers who see that the reality of the type of teacher they have to be, does not always align with the ideal they had in mind when they first entered the profession. This is something that is also discussed in the existing literature (Olsen, 2014). She also reminded me of her reservation that she still considered the process of incorporating graphic organisers in the lesson as an *"additional task"* for an already extremely busy teacher. Even though designing graphic organisers was *"relatively easy and flexible"*, they still demanded time. "*Time that is non-existent"* as during her breaks she had to travel to the other schools she was in charge of whilst her preparation time at home was limited due to family commitments.

Hestia said that she felt that she did not fulfil her role as a teacher to offer support to students experiencing learning difficulties using *"something new and different from the material and methods that their teacher uses in the classroom"*, because of her busy schedule. She felt guilty for this, but the emotional rewards she received by experimenting and seeing this having a positive effect on her student, made up for it contributing to her sense of self-efficacy. She concluded by thanking me for giving her the opportunity and a reason to try harder and experiment with her teaching. This is a sentiment I noted by all my participants, who seemed to regard their participation in my research as an incentive to experiment, developing as professionals. This is an element that I discuss in more detail in chapter 7.

Graphic Organiser 6.6: Hestia – Third episode – Interview presentation



6.4 Athena

6.4.1 First episode

6.4.1.1 Lesson (Appendix 21)

Athena was the only participant who did not alter her lesson structure for any of the three lessons I observed. All three lessons followed the same sequence and primarily aimed at supporting reading comprehension with occasional different secondary objectives. For this first lesson the secondary objective was understanding the concept of cause and effect. The stages of all three lessons were similar: the student read the text aloud, then Athena posed reading comprehension questions, and finally the student was asked to do an oral retelling of the text. During all three lessons, graphic organisers were introduced following the text reading.

For this first lesson, Athena incorporated two graphic organisers. Both were semi-complete and the aim was for the student to fill them in following reading of the text. The graphic organisers were of different types: one was a story map and the other a cause and effect map. Athena gave explicit instructions on how to fill these in and discussed the purpose of their use.

The text she was in her lesson was titled “A frog in love”, derived from the classroom (third grade) textbook. The main theme of the story was that love has no boundaries, expressed by a green frog in love with a white duck.

6.4.1.2 Interview

Initiating the interview (Graphic Organiser 6.7) by asking Athena about her opinion on how the lesson went, she commented that she was happy with her student’s performance but she noted that it was important to explain and train the student in how graphic organisers work and how to fill them in, in order to have an effect. The importance of training students to acquire a learning strategy, such as the use of graphic organisers is linked to metacognition and independent learning (Pandeliadu, 2000). The theme of metacognition was mentioned quite frequently by all my participants, linking this with their core belief that students should be helped to become autonomous learners. The gravitas my participants placed on this belief justifies their decision to focus on teaching their students “how to learn”.

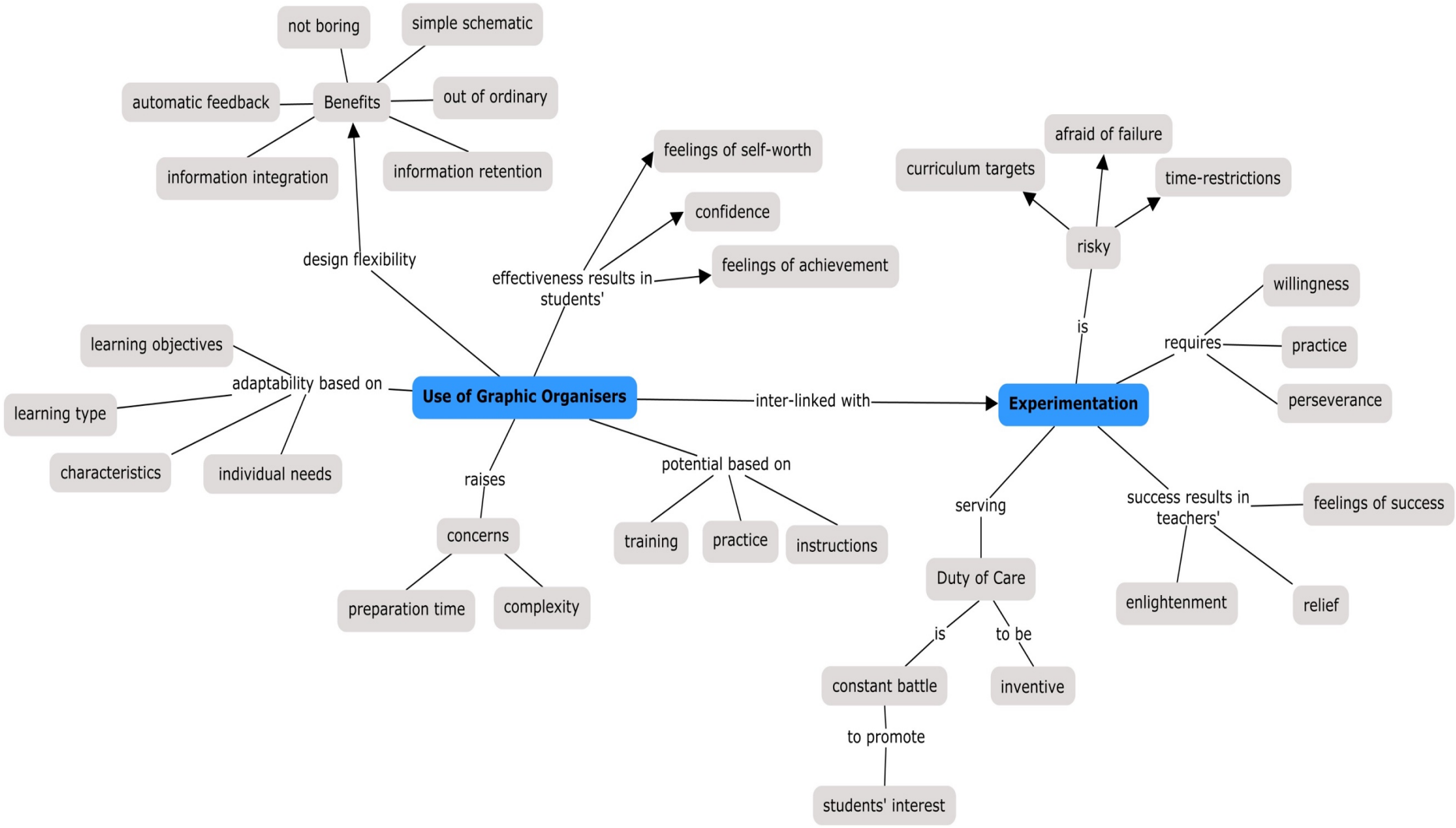
Athena, however, noted that caution is needed as to what type of graphic organiser is effective for each student. She argued that designing graphic organisers should be based on the individual needs of each student recognising their learning type, individual needs and characteristics. Again, student-orientated factors were cited as reasons affecting the decision as to what type and mode of graphic organisers she would experiment with.

> "*Teachers should not get carried away by what type of graphic organiser we find useful in the sense that the type that might help me retain information might not be suitable or effective for my student. For example, when I read a text I never take detailed notes because I don't need them, and I may create a very simple graphic organiser but this might not be helpful for my student because they need a more detailed organiser. On the other hand, I may create a graphic organiser with lots of details but this might confuse the student who may perform better with a simple graphic organiser instead".*

Discussing the effect of experimentation on teachers, Athena argued that for a teacher *"to move away from the traditional teaching methods and material, practice and perseverance is needed".* She noted that it is difficult for a teacher to take risks, and she believed that practice and willingness to change and experiment are essential ingredients. She was fully committed to experiment with new methods as one of her main aims was to retain student interest levels. She commented that keeping the students interested is a constant battle for teachers and inventiveness was needed in all subjects. She justified her conviction by arguing that when a new teaching tool was effective students developed a sense of self-worth and confidence in their abilities, which was an important factor for her.

> *"Our responsibility is not to simply attend the classroom and teach using the same old, same old methods. The student should always come first. Everything we do should be for their benefit even if being inventive and experimenting means that we may be a bit challenged in preparing the lesson at home. Thank you. It is enlightening for myself as a teacher".*

Graphic Organiser 6.7: Athena – First episode – Interview presentation



6.4.2 Second episode

6.4.2.1 Lesson (Appendix 22)

As discussed earlier (first episode) Athena maintained the same learning objective (reading comprehension) in this second lesson. The format of the lesson was also similar with reading aloud followed by verbal comprehension questions and filling in a graphic organiser before ending the lesson with oral retelling. Athena also allowed for a second graphic organiser to be filled in, requiring the student to suggest alternative solutions but also consider the reasons and consequences behind each suggestion. The story used in the lesson was titled "A tree is asking for a home", and it was derived from the classroom (third grade) textbook. The story described the efforts of a little bird to find a suitable home for a tree seed to grow.

6.4.2.2 Interview

The interview developed in two parts (Graphic Organiser 6.8). The first part discussed the use and effectiveness of graphic organisers, whilst the second part focused on the effect their use had on the teachers. Athena regarded the use of graphic organisers as an interesting variation away from the ordinary, motivational and beneficial for both student and teacher, *"it's like a game, a learning game"*. Ryan and Deci (2000) argue that learning activities characterised by challenge and novelty facilitate intrinsic self-motivation and this will be further discussed in chapter 7, as it was a matter discussed by all my participants. However, this argument should be taken "with a pinch of salt" as it is possible that the effectiveness of graphic organisers deteriorates when used too frequently and are not so novel for the students anymore.

When I asked Athena to sum up what she believed were the most important benefits of using graphic organisers, Athena argued that they offered an alternative way for a student to analyse information in a way that actually allows effective retention and comprehension and that assessing the student's performance was easier. She commented that she felt content and satisfied by their use and saw evidence of their effectiveness for her student. Despite the excitement though, Athena reiterated that their use required guidance before the student was able to use them and incorporate them in their learning fully and independently. Her cautious approach, despite the

positive effects she noted, might explain why she did not deviate from her teaching plan for any of the three lessons I observed.

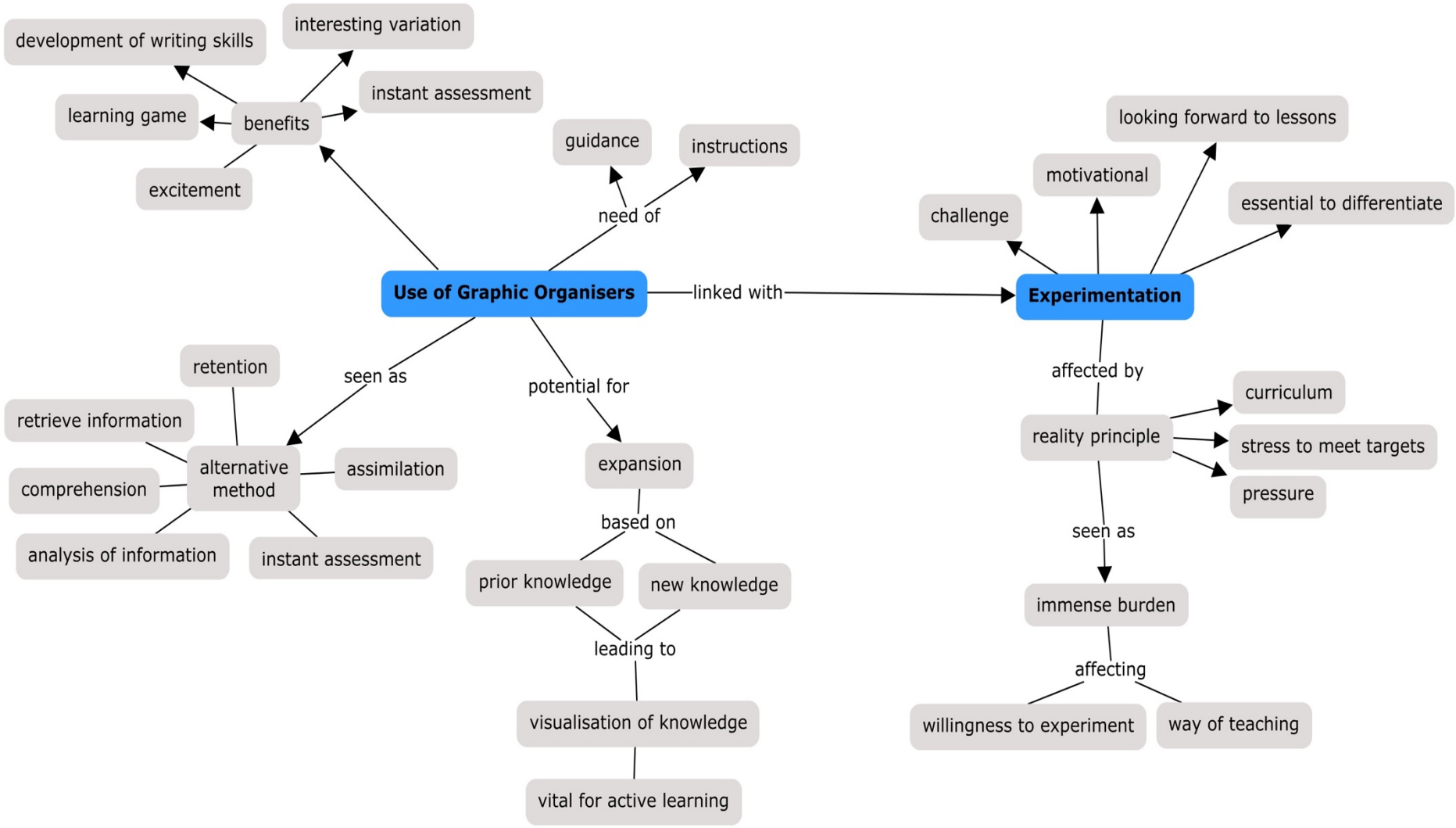
Turning the focus of our discussion to her experimentation I asked her to elaborate why she participated in my project, to which she replied:

> *"This project was a challenge for me. It motivated me to do something different. My excitement steadily grew and I was looking forward to every lesson that I was incorporating their use. To be honest, as teachers we need someone to push us sometimes to move away from the traditional and ordinary teaching tools. It is of course easier to simply prepare a written exercise sheet and give it to the students to complete, but using something so different* [*graphic organisers] is essential once in a while".*

Worlds like *"challenge", "push", "wake-up call"* were frequently cited as powerful motivators for my participants' experimentation in teaching. It could be, therefore, suggested that these factors should not be underestimated when exploring the reasons why teachers participate in research and willingly dedicate so much time and effort in experimenting and ensuring that *"interesting variations"* in teaching tools are beneficial for the students, "*especially students with reading difficulties".*

Athena, however, also commented that the Cypriot national curriculum places an immense burden on the shoulders of special education teachers, covering more than one schools every week, effectively posing a restriction on how often and when a teacher could experiment with something new. *"The stress of meeting all those targets posed by the Ministry is sometimes unbearable, and it may impact on how we teach and our willingness to experiment".* The increased emphasis on performativity and accountability colliding with her idea of a good teacher (Olsen, 2014), results in a tension in Athena's feelings about experimenting. Managing this conflict in teacher expectation is difficult, however, her resilience and commitment to her students fed her motivation to carry on. These are specific issues emerging from my data and will be discussed in more detail in chapter 7.

Graphic Organiser 6.8: Athena – Second episode – Interview presentation



6.4.3 Third episode

6.4.3.1 Lesson (Appendix 23)

In this lesson Athena reverted to the learning objectives of reading comprehension and understanding the concept of cause and effect. The sequence of activities was also identical to the previous two episodes. The lesson incorporated the use of two graphic organisers: a spider map and a cause and effect map, which were filled in by the student following reading of the text. For this lesson, Athena used a text from the third grade textbook again, which was titled "The trees are fighting". The story described a fight between various trees as to which is the most beneficial for people. The fight carried on until the sun explained that all trees and their fruits are important for humankind.

6.4.3.2 Interview

Graphic Organiser 6.9 prepared in respect of this interview is again far more complex than the two graphic organisers prepared for the first two interviews which indicates the evolution of the teacher's development. The interview was initiated with Athena expressing her joy with the good performance of her student and the detailed written retelling he produced. Athena explained that the student did well when both a story map and a cause and effect map were used and that she would maintain their use in combination. Athena's final remark on this point was her wish that the student would assimilate the use of these two graphic organisers as an acquired learning strategy. When asked to elaborate further, she said that her role as a special education teacher was not just for educating the students, but also for preparing them for their *"future life and inclusion in society"*, wishing that all her students finished each school year having gained metacognitive strategies. Metacognition concerned the majority of my participants who all claimed that acquiring learning strategies was a valuable asset for students' futures.

Athena explained that *"it is our duty to experiment and stay informed as education changes constantly and rapidly and to be able to offer the best to our students we need to be alert and respond to change accordingly"*. She reiterated that teachers were there to teach students how to learn and not simply transfer knowledge. This is what she believed a "good teacher" should do.

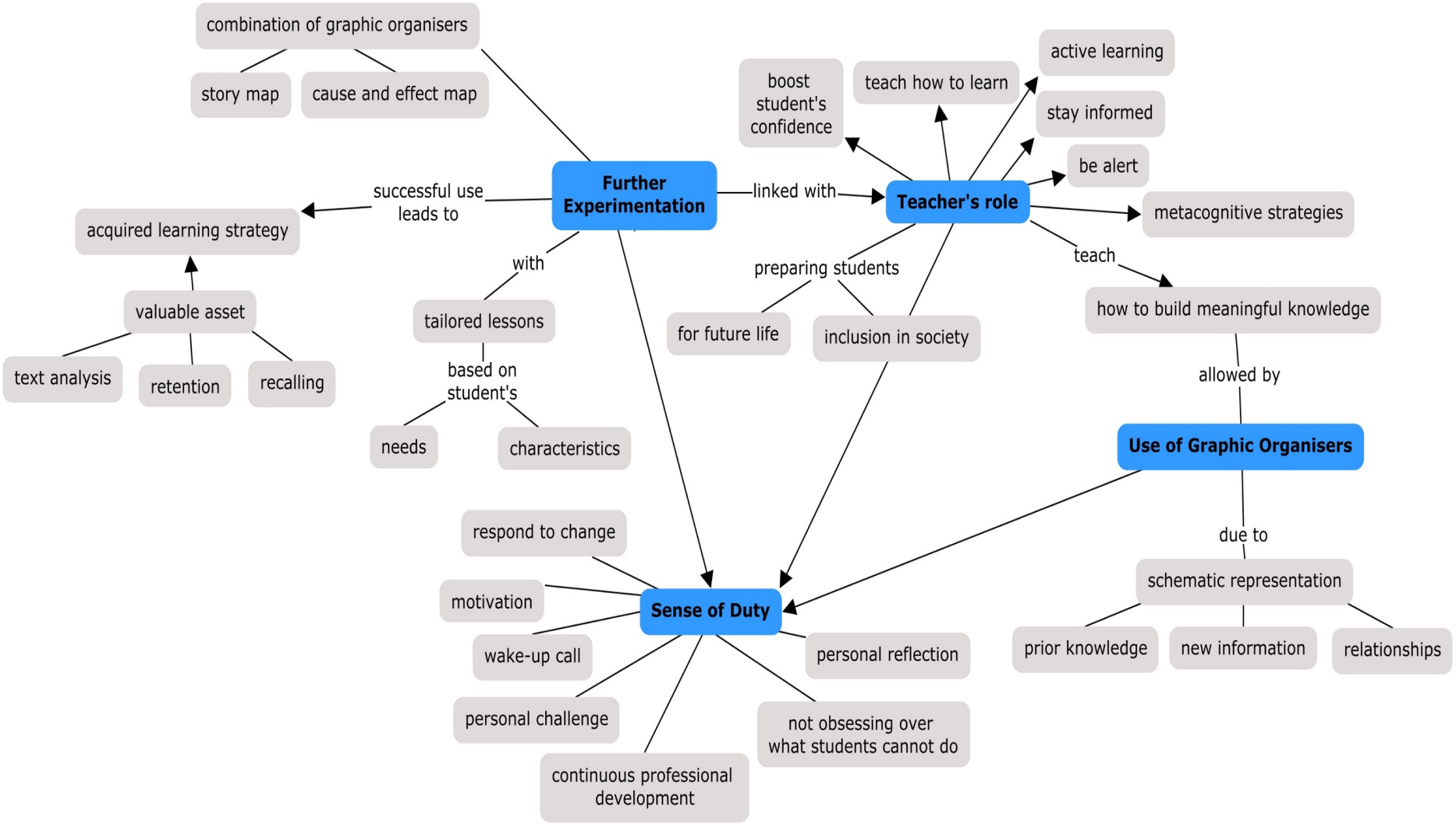
> *"Information is everywhere around us. Students need to learn how to build on their knowledge so that it is meaningful to them. Therefore, learning is not just during school. Learning is lifelong and can happen everywhere as school is not the only source of knowledge. Living itself is a source of knowledge and being able to have this knowledge schematically and how all information is linked, as well as retrieve a piece of information from our memory when needed, is invaluable. Knowing legislation is not knowledge, being able to understand and retrieve it and use it as an argument in a conversation is knowledge".*

However, Athena returned to discussing her feelings of sadness, anguish and stress resulting from her heavy workload (fourteen students in seven different schools) and pressure from schools and parents. She believed that these factors heavily impacted how she worked and how she perceived her identity. Gu and Day (2007) argue that the conflict between personal expectations, professional identity (influenced by personal beliefs of what constitutes a good teacher) and the situated reality, affects the motivation, commitment and performance of teachers. Athena's interview reflected this point highlighting the gravitas of situated realities on how teaching practices are realised.

Asked for a closing remark, given that the study was coming to an end, she said:

> *"I would like to thank you for allowing me to participate in this project that has shaken me and has reminded me the importance of being alert and experiment. As always the experimentation needs to be based on the individual characteristics of my students and graphic organisers have allowed for this. This project has been a wake-up call allowing for personal reflection but also for motivation to experiment. An invaluable experience. Thank you".*

Graphic Organiser 6.9: Athena – Third episode – Interview presentation



6.5 Hera

6.5.1 First episode

6.5.1.1 Lesson (Appendix 24)

Here was the only participant who did not use any text at all during the three lessons I observed. Despite focusing on comprehension and retention of main ideas either via a written or oral retelling for all three lessons, she used graphic organisers as a substitute for text making its construction the main element of her lesson. For this first lesson, the elements of the graphic organisers did not contain any words or phrases but only pictures. The story upon which the graphic organiser was designed during the lesson was not derived from the classroom textbook but from a story book recommended for the age group of the student. The story was titled "Mr. Up and Mr. Down" and it was a story about two neighbours whose lifestyles were the complete opposite to each other. Hestia had prepared printed cards that were to be used to design the graphic organiser by placing them on the whiteboard as she was narrating the story. On the day, however, she forgot to bring the story cards to class and she made the drawings by hand on the whiteboard instead.

6.5.1.2 Interview

Our interview (Graphic Organiser 6.10) was initiated with comments on the observed lesson. Hera believed that the lesson had failed and was not as productive as she expected with the student not being able to recall much information. She commented that she was not happy with the outcome, commenting: "*I am not satisfied and I think I failed"*. She remained puzzled by her student's performance, engaging in constant self-reflection and already planning the changes she wished to implement in her future lessons. Studies have found that self-reflection is an important skill for teachers to develop their professional practices and identity within their classroom (Korthagen, 2004), and it appears that Hera experienced a similar situation.

When the conversation led to reading comprehension, Hera commented that before being in a position to read a text, the student needed to be trained on how to decode a text, find the main story elements as well as *"read through the lines"* to be able to understand the writer's message. She also commented that how a student

interacts with a text depends on various factors, such as prior knowledge, writing style of text, syntax and vocabulary used. This, is the point where she concluded, is where a teacher comes in, needing to teach a student to use strategies to find and retain both explicit and implicit information from a text, as she concluded.

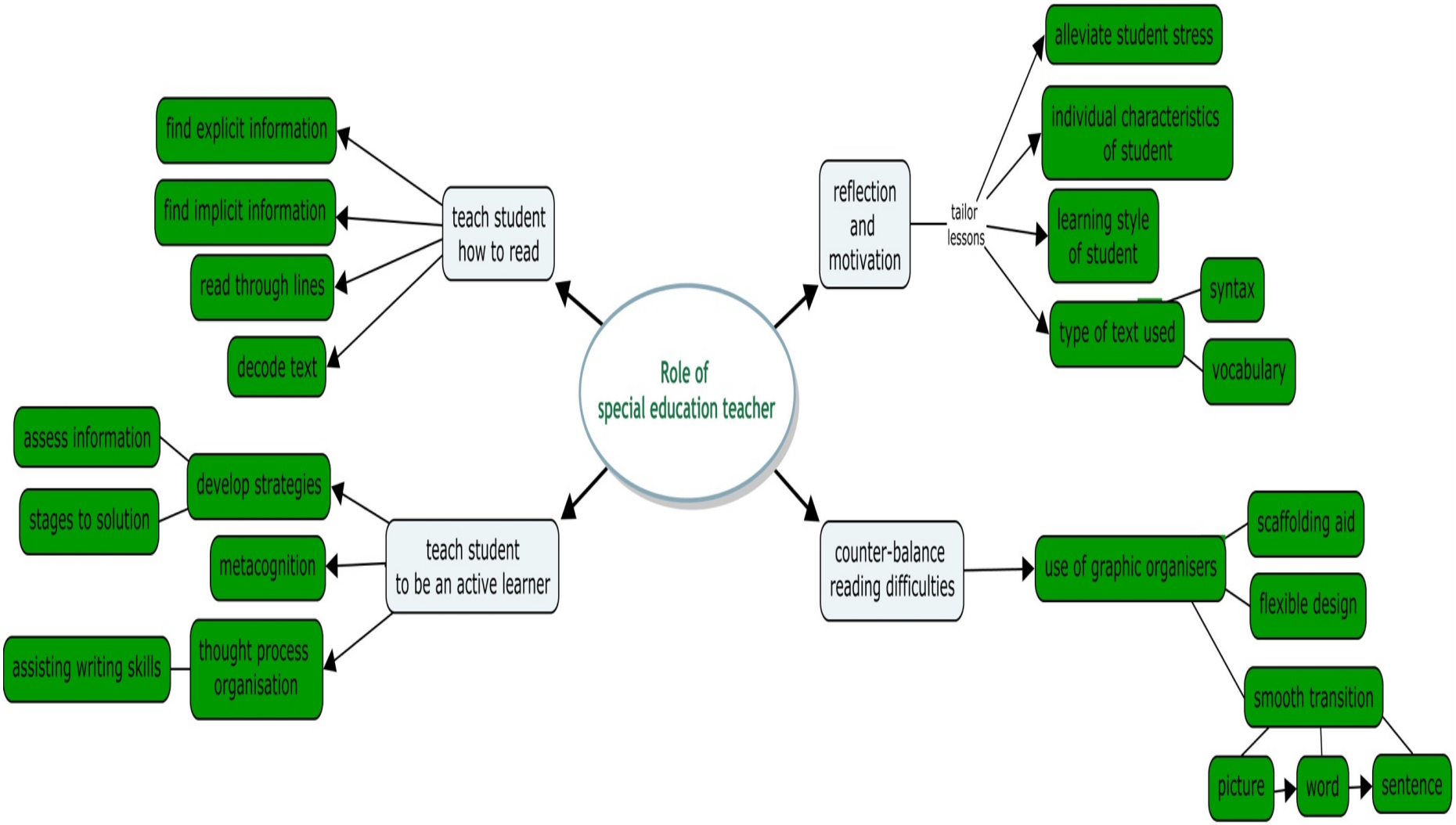
> *"We need to help students develop strategies that help them be complete as learners, to know how to assess and retain information, what stages they need to follow to find a solution, to learn actively and independently. We adjust and adapt our teaching based on the individual characteristics of the student and their style of learning".*

Asked how graphic organisers were used in her classroom, Hera noted that they worked better as a complementary aid to other methods such as theatrical play, whereby the student actively participated in the storytelling process by acting as one of the main characters following Hera's directions, whilst they designed the graphic organiser together. Considering this point further, authors such as Paas (1992) argue how the use of semi-complete graphic organisers as scaffold along other teaching tools and methods promotes guided learning whilst reducing the cognitive load of the student.

Hera also commented that she was often critiqued by her colleagues for not using books as often, however, she believed that the positive performance of her students and their *"joy"* when not using books, had reinforced her conviction that learning can be carried out without resorting to the "traditional" methods of reading and writing.

Asked to reflect further on her role, Hera reported that she had been working in special education for fourteen years and she got into this by chance, but once in she felt complete and motivated to work harder each and every day for the best outcome for her students. It may be that over time, her role and identity was shaped by the fact that she had been in her profession for so long. Without a doubt, her confidence in using more novel practices, such as theatrical play, stemmed from her experience, and this may have been the reason why she so willingly and enthusiastically agreed to participate in my research.

Graphic Organiser 6.10: Hera – First episode – Interview presentation



6.5.2 Second episode

6.5.2.1 Lesson (Appendix 25)

The lesson objectives were comprehension and retention of information. The graphic organiser (substituting the use of text entirely) was again hand-drawn on the whiteboard by Hera in collaboration with the student, following a theatrical presentation of the story by herself and one teaching assistant who attended the classroom to assist with the play. For this lesson, however, the graphic organiser was designed by using a combination of both words and pictures. The story upon which the graphic organiser was designed during the lesson was again derived from a story book recommended for the age group of the student and not the classroom textbook. The story was titled "The Advertisement" and it was a story about how an advertisement with strength as its main concept, has a positive impact on a child.

6.5.2.2 Interview

This interview (Graphic Organiser 6.11) was broadly similar in structure to the previous one. Hera initially commented that assessing the observed lesson, she believed that this lesson format was more effective for the student. She further noted her decision to use a combination of both words and pictures, as *"it is an efficient way to smoothly guide a student how to read and write words and sentences"*. She also proposed that this use of the graphic organiser was more appropriate for her student's needs and characteristics. When asked to elaborate further, she classified her student as *"a mostly acoustic type learner who is more receptive to information he can hear rather than read"* who was easily distracted by long texts and could not focus or be motivated easily to engage in a reading activity, thus a graphic organiser containing both words and pictures along with a theatrical play were more beneficial for him. Once again, the importance of student-oriented factors affecting how and what teaching practices teachers employ is highlighted in my data. The frequency of this theme across the interviews with my participants was notable. These factors act as a cornerstone upon which teachers construct their teaching practices.

We then discussed the issue of the design of the graphic organiser. Hera said that she would not even attempt to provide it complete to her student as she didn't see

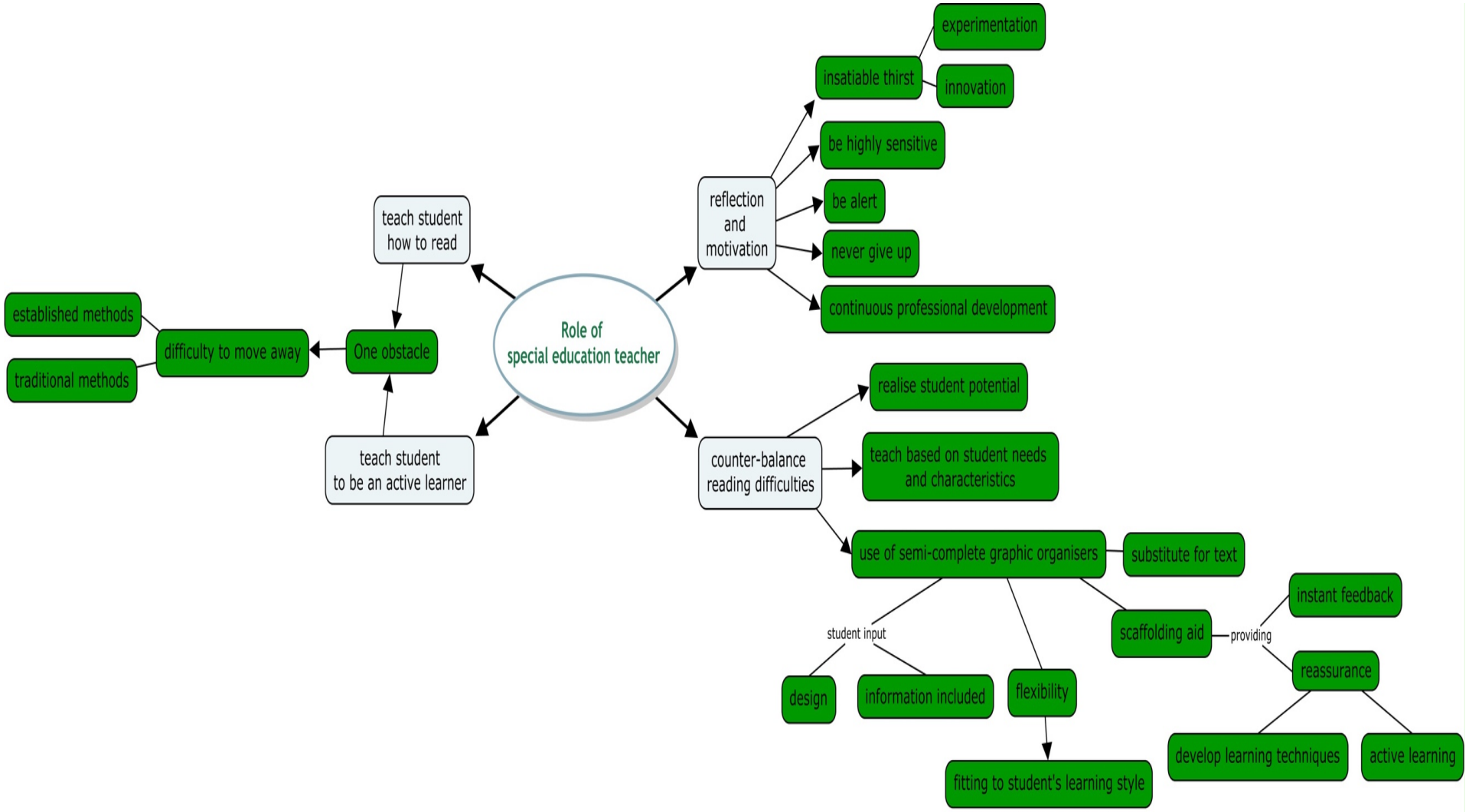
any point in not letting the student have an input as to what information should be included. Her conviction stemmed from her belief that a ready-made graphic organiser could never be as beneficial as a graphic organiser that is designed with student's input as *"in this way the teacher could be certain that the student has developed a guiding map. It also offers reassurance that students could learn to be active learners with the ability to develop learning strategies for their future education"*.

The discussion then led to her realisation that a teacher cannot easily move away from the established and traditional teaching tools, to move away from the routine of opening the book, reading from it and then answering the questions that follow the text. She reluctantly mentioned that the head-teacher praised her for using innovative approaches in her teaching, such as theatrical play, whilst she was asked to video record one of her lessons for other teachers to see. She was shy about this incident but also proud to show that *"experimentation is vital"*. As noted from my interviews with the other participants, innovation and how this is affected by practicalities of everyday life and the appeal that existing traditional teaching methods and tools have, is a point that was mentioned during most of the interviews and is returned to in chapter 7.

Discussing the importance of reflection, Hera stated that following the reported failure of her previous attempt to incorporate graphic organisers in her teaching, she engaged in personal reflection and evaluation of her teaching. She concluded that this had helped realise that further experimentation was needed in their use and application. She quoted:

> *"I have an insatiable thirst to constantly find new ways to keep the students motivated and interested in learning. I think it is a shame to let students, who face specific difficulties in their learning, go to waste. These students need us the most. They need a teacher to realise their potential and teach them based on their individual needs and characteristics"*.

Graphic Organiser 6.11: Hera – Second episode – Interview presentation



6.5.3 Third episode

6.5.3.1 Lesson (Appendix 26)

Substituting the use of text entirely, the graphic organiser for this lesson was formed during the story narration by the teacher, just using printed pictures. The graphic organiser was put together on the floor with the use of connecting play mats. The story used was titled "The pin", and again was derived from a story book recommended for the student's age, which described the trip of a yellow pin from the moment it fell from a notice board to the moment it ended up in another country by being stuck on a shoe.

6.5.3.2 Interview

This interview (Graphic Organiser 6.12) as well as analysing the lesson that had just finished, also elaborated further on issues discussed in previous interviews. Hera commented that she was excited to see that her student's performance had improved and was able to benefit more from the use of graphic organisers, being able to follow its sequence with ease without encountering any issues in comprehension or show signs of confusion at any point. She reported that the success was attributable to the familiarity of the student with graphic organisers. *"Practice makes perfect"*, she said.

The second and larger part of the interview focused on Hera's excitement to experiment with her teaching. She characterised the project as a challenge to experiment and re-invent herself as a teacher following the feeling of *"saturation"* as a consequence of being a teacher in the same classroom for six consecutive years. In chapter 4, I argued that implementing long-lasting change is linked with self-motivation resulting from experimenting with innovation (Casteleyn et al., 2013). Hera talked a lot about the time she would devote to experiment with teaching approaches that suited her students' learning characteristics, making sure the individual needs were met. This seems to constitute a persistence, commitment and focus to not give up and keep experimenting, and that may be the reason why *"despite being extremely busy"* Hera challenged herself to participate in my research and *"did not regret it"*.

"I have found something that I can use to help a wide range of students. I

can use it to accompany a text if my student is at that stage in their learning, I can also use it without any text and utilising only pictures for a student who struggles more with reading. However, I can also use it as a scaffold to my theatrical play lessons I do with my students. What more can I ask for other than acquiring a new flexible tool to add to my teaching tool box".

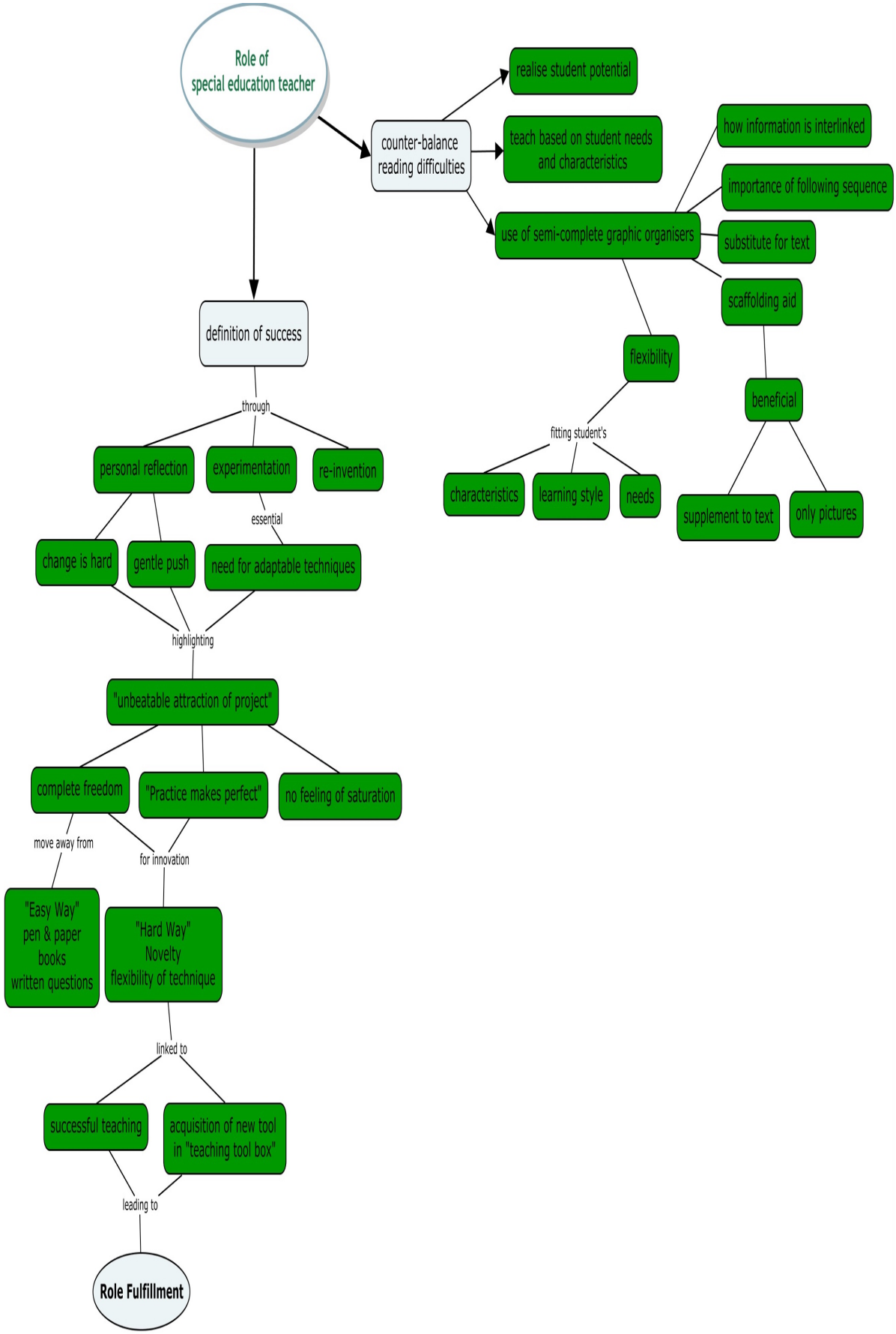
Seeing the success the lesson had that day reinforced her conviction about how essential it was to adapt based on the individual needs and characteristics of the students, needing *"flexibility according to my students".*

> *"If a student is an acoustic type how would they have benefitted if I was making them read endless pages of text and graphic organisers full of words? Being flexible is essential, and graphic organisers are flexible as they could be designed with pictures and symbols, on the floor or on the whiteboard, they do not need pen and paper".*

Hera questioned the impact that my study would have had if I attended her classroom asking her to use interventions prepared by myself. She said that the *"unbeatable attraction of the project"* is the freedom it offered to the teacher to experiment as they thought best in any subject matter they wanted. Effecting change is complicated. For a teacher to move away from the traditional methods, they need motivation and a *"gentle push"* to experiment in order to bring change in the classroom. In Hera's words:

> "*The special education teacher has an amazing job. The easy way to do this job is to use the traditional pen and paper, books and written questions until the day is over, saying that there is no time for something new. However, the special education teacher should have a thirst to want to find new ways to teach these students. Projects like the one we participated together are essential. Motivation to experiment and use of something new and innovative that has the flexibility that is so much needed in our withdrawal classrooms. Not one size fits all. Flexibility is the outmost characteristic that any teaching technique should have in order to be successful, and graphic organisers have this flexibility".*

Graphic Organiser 6.12: Hera – Third episode – Interview presentation



6.6 Demetra

6.6.1 First episode

6.6.1.1 Lesson (Appendix 27)

Demetra used a similar approach to Athena for the three lessons I observed, in the sense that she did not alter her learning objective, being reading comprehension. Using a story titled "Flowers for Mum" derived from an age-appropriate story book and not the classroom textbook, Demetra initiated this first lesson with the student reading the text aloud, followed by the creation of a graphic organiser by Demetra. The graphic organiser was a hand-drawn story map including pictures, created whilst the student was orally answering reading comprehension questions posed by the teacher. The final element of the lesson was an oral retelling by the student.

6.6.1.2 Interview

This first interview (Graphic Organiser 6.13) mainly focused on the lesson that I had just observed. Asked to reflect on the observed lesson, Demetra said that she used pictures and colour in her graphic organiser now whilst when she had first used it, she had only used a pencil to draw the map. She noticed that using colours as well as pictures is more beneficial but also *"prettier"*. This is in line with Wallace et al.'s (1998) findings that students respond more to colourful graphic organisers. The theme of attractiveness in respect of teaching materials was discussed by all my participants and it was linked with intriguing the students and awakening their curiosity in order to maintain their interest in the lesson, which seemed to be an essential "strategy" my participants followed in their teaching.

> *"Designing a colourful graphic organiser that includes pictures as well as words, helps maintaining the attention and focus of the students. They enjoy it and they are interested in the lesson. I always believed that enjoyment and keeping student's interest alive is an important element we need to aim at during our lesson".*

Asked to discuss the benefits of graphic organisers for the student, Demetra said that graphic organisers help students with reading difficulties who *"struggle to*

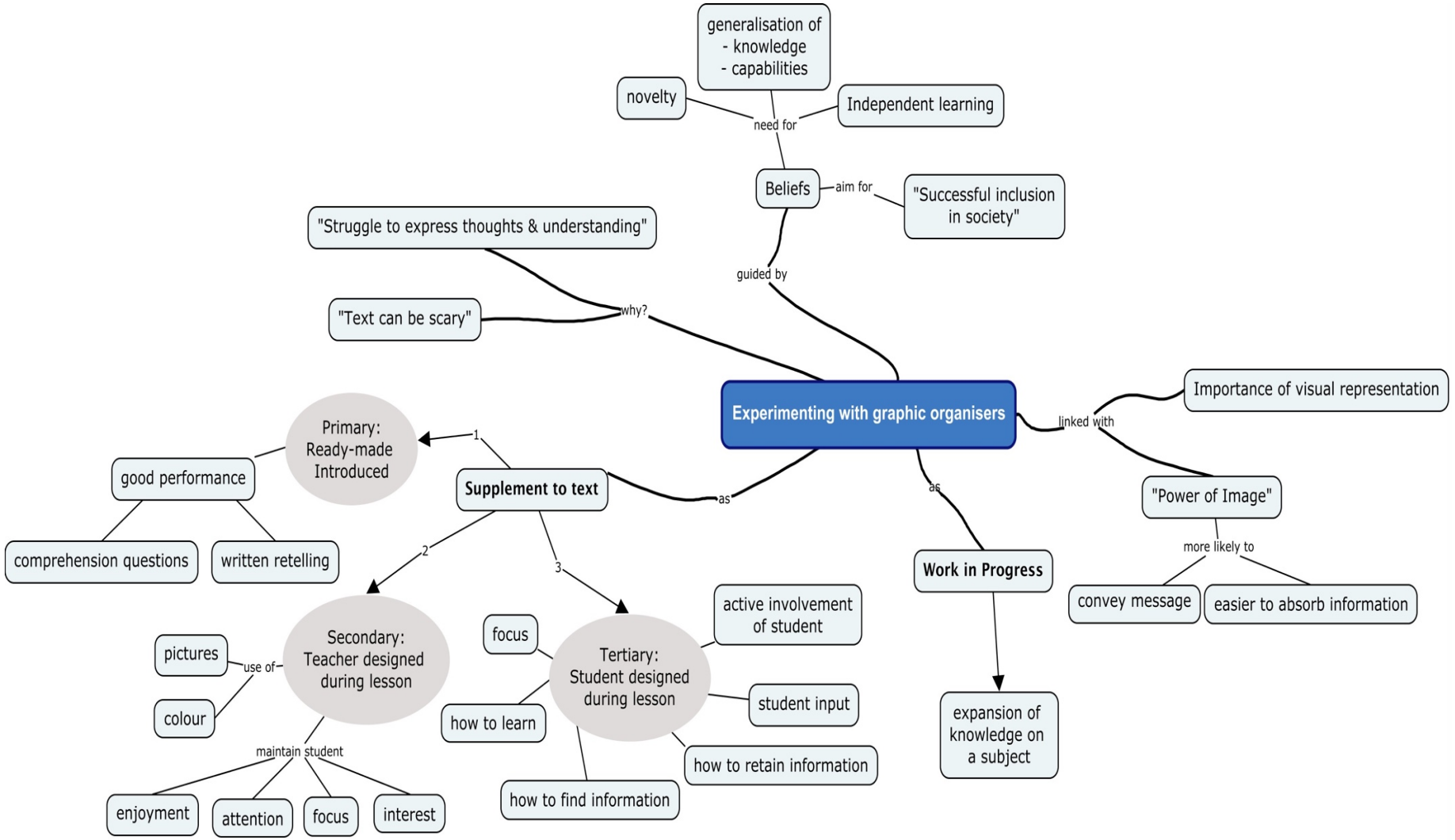
express their thoughts and understanding". She noted that graphic organisers seem to motivate them and keep their interest *"which is what is needed in order for them to try harder, because a text can be scary for them"*. She believed that graphic organisers are able to hold the student's attention for longer periods, especially when they are designed during the lesson and the student is asked to find the information to be included from the text. This fact, she stated, was important as it teaches students how to learn and retain information rather than just indicating which information is worth keeping in mind. She linked this with the importance of visual representation:

> *"It is not by chance we keep referring to the power of an image. Pictures are everywhere around us. Presenting information visually is more likely to be successful in conveying a message rather than a paragraph in a text. Everyday life is full of pictures, maps, flowcharts. Our students, despite their difficulties need to be able to absorb information and using any form of visual representation seems to be more beneficial"*.

The concepts of visual memory and training students how to use tools such as graphic organisers were then discussed by Demetra. She reiterated that visual stimuli have more benefits for students with reading difficulties, as the majority of them struggle to keep up when information is presented via auditory stimuli only or by simply reading a text. Their attention is easily lost, she stated.

Contrasting her lessons with *"more traditional lessons"* carried out by other teachers, Demetra asserted that her aim was not just help with the students perform well by reading well and answering questions correctly but also generalise their knowledge and capabilities *"for their successful inclusion in society whereby they could use techniques for independent learning. This is my motivation, what keeps me going"*. She felt very passionately about her students' future education, happiness and wellbeing. This concurs with Hunter-Quartz et al.'s (2010: 105) argument that teachers quite often feel that their duty is *"the development of a human being"* in a holistic way, minimising the focus on short-term learning aims.

Graphic Organiser 6.13: Demetra – First episode – Interview presentation



6.6.2 Second episode

6.6.2.1 Lesson (Appendix 28)

For the second lesson I observed, Demetra introduced a semi-complete graphic organiser that included written questions asking key information, such as the characters, their actions, the setting, the meaning of the story that the student needed to find from the text and fill in the graphic organiser. This activity took place following reading the text by the student and prior to their retelling of the story. For this lesson, the story used in the lesson was titled "Unforgettable Birthday" derived from the classroom (third grade) textbook. This text was also used by Artemis during the first lesson I observed.

6.6.2.2 Interview

I initiated the interview (Graphic Organiser 6.14) by discussing the lesson. Demetra argued that filling in graphic organisers or creating them from scratch during the lesson, provided instant feedback to both the student and the teacher as to the performance and level of comprehension of the student. At that point she recalled that in order to test her theory she had previously asked her student to retell a text that was analysed and accompanied by a graphic organiser the following day with the student giving *"a perfect oral retelling of the story"*; compared with a much *"weaker performance"* when she did the same thing but for a text that was not accompanied by a graphic organiser. Demetra also commented that performing well, gave students *"a much-needed boost of confidence whilst they were focused for longer periods of time"*. As a result, she felt motivated to carry on using graphic organisers and experiment with their use, *"feeling that I have achieved something"*.

As per her first interview, elaborating on the importance of visual attractiveness, Demetra commented that using graphic organisers is mostly beneficial if they incorporate pictures and colour. However, reflecting to that previous argument she now said that not the same graphic organiser is good for all students, as *"not one size fits all"*. Graphic organisers should be adapted based on the individuality of each student, made simpler or more complicated, according to the needs of each student. She linked this with her idea of a "good teacher".

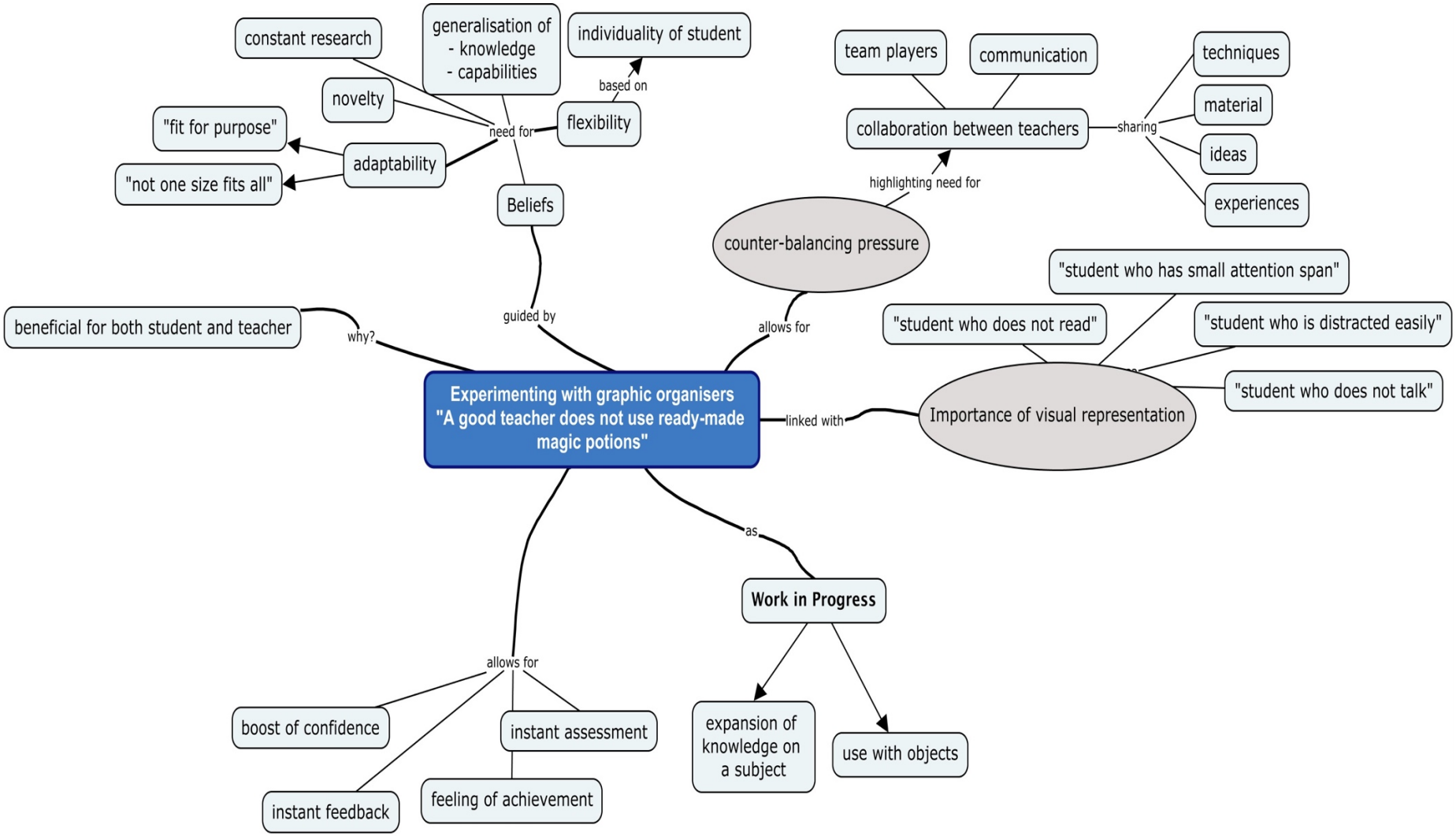
> *"A good special education teacher does not use special, ready-made magic potions. A special education teacher is a good teacher who analyses an idea, a new technique and adapts that idea so that it could work for her students. There is no magic solution that works for all. Teaching students with learning difficulties in general is a constant battle, a work in progress that results in non-stop effort by the teacher".*

Using similar language as Hestia, Demetra stated that special education teachers were under a lot of pressure and faced high expectations by all stakeholders (school, parents, colleagues). Her references to stress and pressure stand out. She questioned her commitment to work hard, thus negatively affecting her motivation and efficacy. She argued that this pressure affected the way teachers prepared for their lessons and how they taught. Again, the effect that practicalities of everyday life have on a teacher's work are highlighted. These concerns were high on the agenda of all my participants and they spent a substantial amount of time discussing them.

The conversation was concluded with Demetra reiterating the importance of sharing ideas between teachers, *"as housewives share cooking recipes"*. The development of a collaborative framework within which teachers work together is based on the idea that learning is a social phenomenon (Wenger, 1998), however, teaching in withdrawal classrooms can be solidary with teachers feeling isolated. My participants discussed their feelings of feeling lonely. Therefore, it could be suggested that sharing amongst supporting colleagues contributes to a sense of self-efficacy, a reassurance that they are doing well, confirming their personal aspirations, forming positive relationships with colleagues, thus minimising such negative feelings of feeling lonely.

> *"We cannot develop as teachers if we don't try and experiment. Is more beneficial if teachers share their experiences and make recommendations. Nobody owns anything. We should all be like a large team. Projects like this, reinforce my argument. I wouldn't experiment so much with the use of graphic organisers in my lessons otherwise and I would have missed out on an adaptable tool that works for my students".*

Graphic Organiser 6.14: Demetra – Second episode – Interview presentation



6.6.3 Third episode

6.6.3.1 Lesson (Appendix 29)

For this final lesson, Demetra altered the main learning objective focusing on teaching the student how to select and retain important information from any given context. In addition, instead of using a pre-existing text for this activity, she asked the student to think of a recent incident that happened to them and describe it. Once the student finished their narration, Demetra asked the student to write down their story. Following this, Demetra presented a graphic organiser that contained empty concept boxes linked to comprehension questions on the main elements that should be retained from any story and asked the student to find these elements in their story in order to fill in the graphic organiser. Some of the main story elements asked were: main character, event, when, where, problem, solutions and resolution.

6.6.3.2 Interview

The final interview (Graphic Organiser 6.15) was again initiated by discussing the observed lesson. Demetra expressed her relief that her lesson had worked. She stated that she had never used this *"reverse sequence"* in her teaching, as she named it. She thought that it would be a more effective way to teach the student by using their personal experience and allow them to reflect on that experience and decide which elements of the incident they described could be considered as the most important elements forming *"the backbone of the story"*. She continued by noting that her aim to provide the opportunity to the student to acquire this learning strategy *"boded well with the use of graphic organisers"* as they could present visually how the important elements from stories emerge and are linked and how minor details could be *"put aside without the story losing its context"*.

Asked to analyse her reasoning for her lesson format, Demetra said that teachers need to aim to provide ample opportunities for the students to actively participate in their learning. This argument reflected her belief that her duty was to prepare her students for the outside world, being independent and able to function in society. The importance of pre-dispositional beliefs on how teachers engaged with their teaching practices was a stand-out theme across my data.

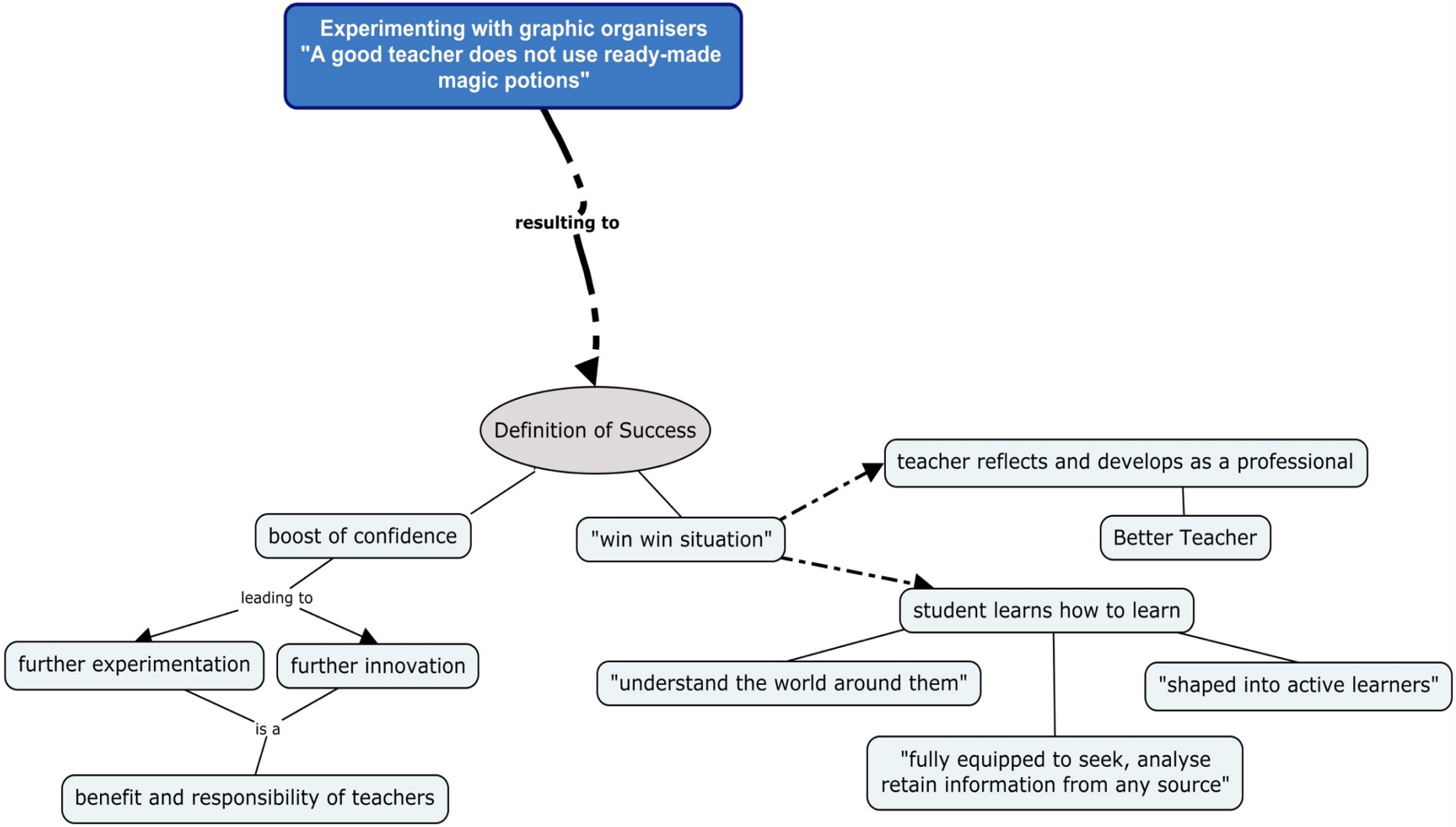
"Our aim is to teach them meaningful and necessary skills and ideas in

life. Knowledge that they need in their daily life to help them understand the world around them. Learning is not just about historical events, grammar, maths. We need to shape our students into active learners fully equipped to seek, analyse and retain important concepts from any source of information they come across".

Discussing experimenting further with teaching tools, Demetra commented that any teaching tool that helps at least one student learn was deemed successful. She was completely committed to help all her students do well. However, she found it *"daunting"* for teachers to *"relentlessly and constantly"* have to think of new tools and teaching methods. Asked to elaborate on the effects of experimenting with graphic organisers on herself as a teacher, she said that she felt motivated to continue working hard for her students, despite time restrictions due to the pressing nature of her profession. She felt that she was successful in fulfilling her role and responsibility towards her students when she experimented with her teaching practices. Thus, despite it being a daunting task, the fact that she was using something new for her students, seemed to erase some of her negative feelings and possible fatigue from trying to experiment didn't matter anymore. Her closing remark was:

"It's a win win situation. The student learns how to learn as well as identifying and retaining knowledge, whilst the teacher gets instant feedback on the student's performance as well as her own performance. This allows for self-reflection, because without reflection on our teaching, our methods, on our student's performance we don't learn from our mistakes nor do we improve as professionals. And by me being a better teacher means that I can give more to my students providing for more meaningful learning. This project apart from allowing me to explore the use of something new in my teaching, it has also opened doors for experimenting with my teaching confidently. Thank you for letting me be a part of this project having the merit of freely experiment with my teaching without restrictions and without questionnaires or surveys".

Graphic Organiser 6.15: Demetra – Third episode – Interview presentation



6.7 Conclusion

This chapter introduces the enactment of my research. It offered detailed accounts of the observed lessons, with the teaching materials and graphic organisers used during each lesson indexed in the appendices. It also offered an overview of the interviews with each of the five participants. These data are derived from my interview transcriptions and my observation notes. The overall aim of this chapter was to familiarise the reader with how the lessons incorporating the use of graphic organisers were structured whilst providing an overview of concepts, ideas and themes discussed during each of the interviews.

On reflection, this chapter has served two purposes. First, it contextualises the use of graphic organisers, given that the interviews are visually presented via graphic organisers that I designed to illustrate the main themes discussed and how these are interlinked. I believe that these graphic organisers provide a holistic picture of how the teachers' thinking process, reflection and experimentation evolved during my study. The graphic organisers for each participant, became increasingly more complex and detailed over time.

Second, examining the narratives of my participants provides a richer picture of their identities and situated realities. These concepts co-exist. I found that each teacher is differently situated (Spillane, 2004) and develops a situated identity (Sammons et al., 2007), whilst their teaching practices depend on the contexts of their classroom (Almas & Krumsvik, 2008). Moreover, concurring with Hamachek (1999), analysing my participants' responses it seems that indeed, *"unconsciously we teach who we are"* (Hamachek, 1999: 209). Understanding who my participants are and their pre-dispositional beliefs has helped me identify the complexities and influencing factors that influence how they experiment with innovative approaches, such as the use of graphic organisers. This understanding has also led me to discover that the procedure of interpreting my participants' self and personal and professional identities in order to break down the reasons why they diligently and enthusiastically participated in my research, is far more complex than I anticipated. Teaching and experimentation seem to be embedded in and intertwined with personal experiences, core beliefs, values and identities

(both personal and professional).

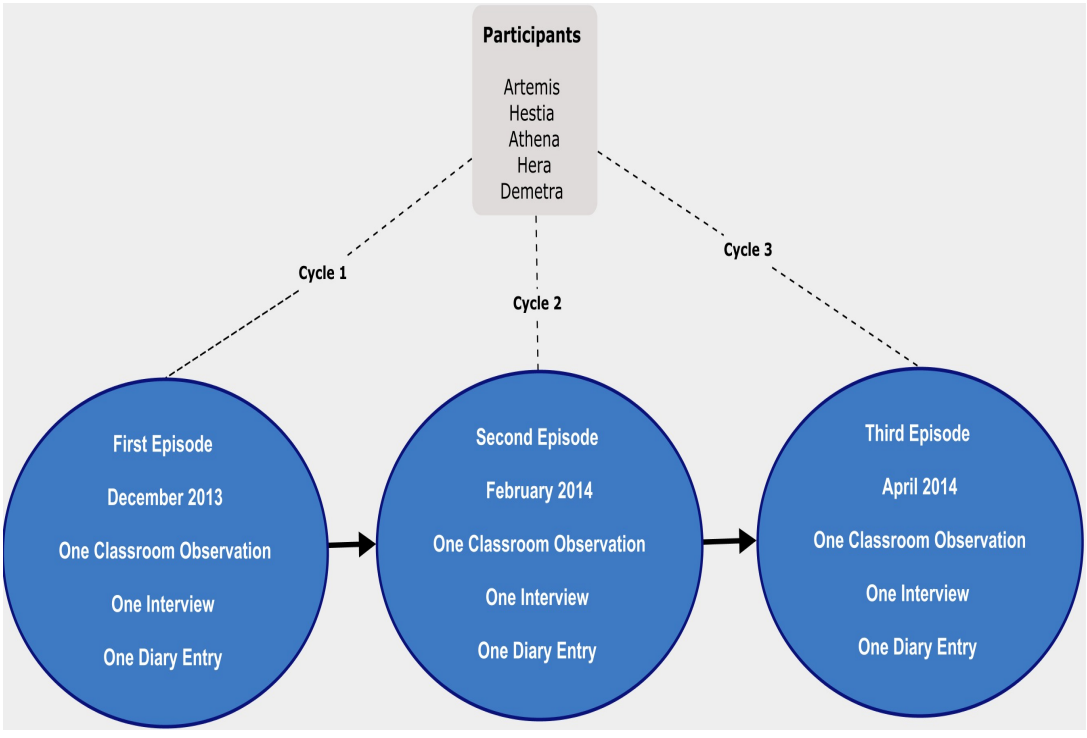
Having this background information in mind and having described and detailed the observed lessons and how the interviews unfolded, I now turn to the crucial chapter of data analysis and findings. The next chapter critically discusses, explores and evaluates the themes and findings from my study against each of the three research questions.

Chapter 7: Findings

7.1. Introduction

My thesis has set out to explore and critically examine how special education teachers engage with innovative teaching tools when teaching students with reading difficulties in withdrawal classrooms. The use of graphic organisers was used as such an innovative teaching tool. This chapter discusses the data collected, coded and analysed for my research and presents my findings by critically and comprehensively interrogating each of the three research questions that guided my study. In this chapter I draw on data from fifteen interviews undertaken with five teachers, their diary entries and the classroom observations I have undertaken. As a reminder, here I set out the timetable of the data collection phase that was initiated in December 2013. As discussed in chapter 5, the three cycles of data collection are characterised as episodes.

Graphic Organiser 7.1: The three episodes of the data collection phase



This chapter presents eight findings elicited from the data:

1) Teachers took chances and experimented with a variety of graphic organisers, in terms of their design and placement during a lesson.

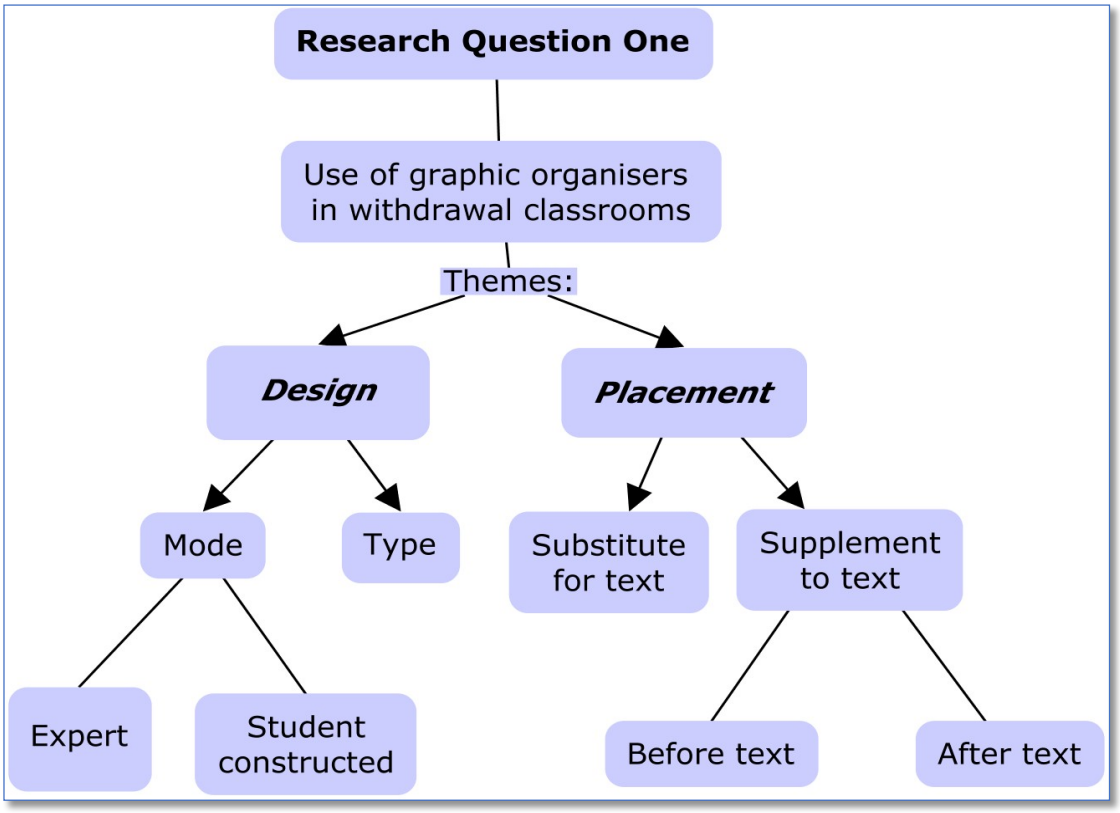
2) The participants' pre-dispositional beliefs, values and identity, forming their core world view (discussed in chapter 1), informs their practice and influences their teaching decisions.
3) The participants' teaching is embedded within the distinct situated reality of their withdrawal classrooms.
4) How a teaching tool is deployed and applied is highly dependent on the abilities and needs of each student.
5) The greatest impact of using graphic organisers for both my participants and their students was in relation to intrinsic effects (emotional impact) referring to feelings of excitement, motivation and confidence.
6) There are practical constraints, which I have named "the reality principle", that influence teachers' teaching approaches and capacity to experiment with innovation in classroom.
7) Teachers develop a higher sense of self-reflection and self-efficacy through experimenting in their teaching.
8) Participating in research and especially action research projects, promotes ongoing professional development for teachers.

As I have discussed in chapter 5, this chapter does not contain an exhaustive list of all the themes that arose from my coding and analysis. They are, however, the ones that were significant and were raised by all five participants across the three cycles of my data collection, and are the themes that directly relate to my research questions. I begin my analysis by responding to the first research question: How are graphic organisers deployed by the special education teachers within withdrawal classrooms? Here, I examine the pattern of deployment of graphic organisers by my participants (first finding). I also discuss the pre-dispositional beliefs and situated realities that affect the teachers' experimentation (findings 2 and 3). Next, I turn to discuss a further finding (finding 4), which responds to the second research question: What is the impact of using graphic organisers on student learning and teacher development? Finally, by problematizing the concepts of pre-dispositional attitudes, identity and the reality principle (findings 5, 6, 7 and 8), I interrogate my third research question: What influences special education teachers to change and develop their professional practices through innovative approaches?

7.2 Research Question One: How are graphic organisers deployed by the special education teachers within withdrawal classrooms?

In this section I explore the practical application of graphic organisers, looking at how my participants used them in their lessons within withdrawal classrooms and how their experimentation evolved from episode to episode. The data I deploy are grouped based on the similarities and discrepancies I identified amongst the five participants and refer to two main themes as illustrated in Graphic Organiser 7.2 below.

Graphic Organiser 7.2: Main themes relating to Research Question One



The application of graphic organisers is discussed and described against two themes, their design and their placement during the lesson. The design theme amalgamates two codes: the mode and the type of graphic organisers. The mode of graphic organisers refers to the use of pre-prepared graphic organisers created by the teachers (also known as expert graphic organisers); or the use of student-constructed graphic organisers during the lesson. Lee and Nelson (2005) characterise this divide as the provision of instructional material against the

generation of instructional strategy. Nevertheless, meta-analysis conducted by Kim et al. (2004) concludes that the effects on student performance were greater when using graphic organisers compared against the performance of students who did not use them (see chapter 3). The second theme relates to how graphic organisers were presented during the lesson. I explore whether graphic organisers were used as a supplement to a text or whether they substituted text completely, effectively being the main instructional tool used during the lesson. In the event of being used as a supplement, I discuss whether graphic organisers were presented before the text, building on the theory of using advance organisers for promotion of meaningful learning (Ausubel, 1968), or after the text being used as content enhancement (Ciullo & Reutebuch, 2013) (see chapter 3). Table 7.1 illustrates how my participants experimented with graphic organisers and transitioned between distinct applications. Overall, eighteen graphic organisers were used during the fifteen lessons I observed (see appendices 15-29).

Table 7.1: Overall pattern of deployment of graphic organisers during the three episodes

	Design				**Placement**	
	Prepared by teacher	Semi-completed for student to fill in	Constructed by teacher during lesson	Constructed by student during lesson	Substitutional	Supplemental
First Episode	2	2	2		1	5
Second Episode	1	4	1		2	4
Third Episode	1	3	1	1	3	3

7.2.1 Design of graphic organisers

The family of graphic organisers is wide and includes a variety of *"node-linked maps"* (Wallace et al., 1998: 5). As discussed in chapter 3, graphic organiser is an umbrella term that includes a variety of visual representation methods aiming at illustrating the visuospatial arrangement and conceptual organisation of a text in a non-linear format that is usually followed by a traditional form of written text. In the research literature that I have explored for my thesis (chapter 3), I noted that

the design of graphic organisers and their effectiveness is frequently discussed based on the mode and type of graphic organisers used, and I have followed the same categorisation for my thesis. Using the same variables as published research in the field (for example Lee & Nelson, 2005), allowed for some comparison and a clearer placement of my findings within the existing literature.

As described in chapter 6, my participants did not show any preference for any particular design theme, having experimented with a variety of graphic organisers throughout the project. Each of the participants experimented with various designs of graphic organisers in each of the observed lessons as well as for other uses mentioned during their interviews or reported in their diaries. In addition, during each of the interviews, the participants discussed their wish to experiment with a different design in future applications. This pattern in their comments was observed across all interviews.

Table 7.2: Design of graphic organisers used by each participant

	Design			
	Prepared by teacher	Semi-completed for student to fill in	Constructed by teacher during lesson	Constructed by student during lesson
Artemis (appendices 15-17)	2	1		
Hestia (appendices 18-20)	2			1
Athena (appendices 21-23)		6		
Hera (appendices 24-26)			3	
Demetra (appendices 27-29)		2	1	

As shown in table 7.2 above, Artemis and Hestia were the two participants who showed a more cautious approach to different and more challenging types of graphic organisers. They started with a type that they felt more comfortable with (expert graphic organisers prepared by themselves prior to the lesson) and slowly experimented with alternative types during the subsequent lessons that I observed.

Athena was the only participant who used two graphic organisers during each of the episodes. Despite only using semi-completed graphic organisers for all her lessons, they were of a different type. For each of the episodes, she initially presented a semi-completed story map followed by the second graphic organiser serving a different purpose each time, two cause and effect maps and one used as prompt for a writing exercise whereby the student was asked to complete the map to give an alternative ending to the story. Concurring with existing literature, the effectiveness of using semi-complete graphic organisers is evident, with Paas (1992) discussing how the use of semi-complete graphic organisers could be seen as scaffolding instruction to promote learning whilst reducing the cognitive load of the student during the lesson. Similarly, Chang et al. (2002) claim that the use of semi-complete graphic organisers assists with familiarising students with the structure and type of information that is considered useful when dealing with similar types of text.

> *"The particular student is helped more by me providing semi-complete organisers. Because he will look in the text, we will talk about it, and then talk about it again, he will keep searching and thinking. I think that by them simply reading a text doesn't mean anything. Don't forget that my student has reading difficulties. At least with the organisers they can look for the important information, and by writing them down I can also work on their writing skills that are also lacking*" (Athena, Interview 1).

Demetra and Hera tended to experiment more with less conventional graphic organisers. Demetra progressed from creating an expert graphic organiser during the first episode with the student observing her, to providing a semi-complete story map based on a text they had just read and finally an outline map which the student was asked to fill in based on a personal experience. Hera tended to focus on using graphic organisers based on pictorial material rather than text. She experimented with a hand-drawn pictorial map she drew (called expert maps) during narration of a story and a similar map with the use of some words alongside pictures, ending with an expert story map using only printed pictures constructed during narration.

> *"We are scaring our students with all that text we keep giving them. At least with the organisers you can make it a step by step progressive procedure whereby you start with creating an organiser with only pictures and then slowly add words. It is a very interesting way of transitioning students from pictures to text without scaring them"* (Hera, Interview 2).

However, I found that my teachers were reluctant to experiment with student constructed graphic organisers during the lessons, with only Hestia using this method for one of the three lessons I observed. This reluctance concurs with existing literature (see chapter 3) whereby researchers dispute whether letting students construct their own graphic organisers during lessons is helpful, given that this task might in fact add to their cognitive load, negatively affecting students' performance (Ellis, 2004). In addition, I believe this may also be an indication of how the limited time the teachers have with their students affects their willingness to experiment with something new in their lessons. Time constraints are discussed later in this chapter.

7.2.2 Placement of graphic organisers

The placement theme, marked during my classroom observations, is explored against whether graphic organisers were used as a sole instructional tool in the classroom, substituting text entirely or as a supplemental instructional tool that is text-dependent. When graphic organisers were used as supplemental tools, I discuss whether these were presented prior or after the main text. The themes that I have selected to describe in this section highlight individual differences amongst the participants which are indicative of the ongoing evolution of their experimentation with graphic organisers throughout my research. Overall, from my classroom observations and as I summarise in table 7.3, the majority of my participants experimented with both types of placement, as the study progressed from episode to episode.

Table 7.3: Placement of graphic organisers used by each participant

	Placement	
	Substitutional	Supplemental
Artemis	1	2

Hestia	1	2
Athena	--	6
Hera	3	--
Demetra	1	2

Three participants, Artemis, Hestia and Demetra, experimented with both supplemental and substitutional graphic organisers during the observed lessons. The three teachers began their experimentation with supplemental graphic organisers. These were introduced to the students after reading a text, either as a summarising tool for the main points, or for assessing the student's performance with the filling in of a semi-complete graphic organiser. They then used substitutional graphic organisers with no reference to a text in the second and third episodes. The reasons they offered for their progression to substitutional graphic organisers were linked with changing the learning objectives of each lesson to a more comprehensive development of learning skills for their students. These learning skills were:

- The development of metacognitive strategies, with Demetra (Interview 3) commenting:

  "I want to teach the students to use them [graphic organisers] on their own in the future. […] To keep this as a future learning strategy".

- Assisting students to express themselves and discuss personal events. This was particularly noted by Artemis who used a substitutional graphic organiser for the Emotional Intelligence lesson theme, arguing that:

  "It is not always about reading comprehension and retention of information from a text. Don't forget that these students go through a lot emotionally having to deal with their difficulties so by organising such activities whereby they are encouraged to talk about their emotions, by using something pretty that seems like a game, we are helping immensely" (Artemis, Interview 2).

- Developing writing skills.

> *"In this way, not only comprehension is assessed but we also effortlessly practice the students' writing skills that are also lacking due to their difficulties with learning"* (Hestia, Interview 3).

On the other hand, the remaining two participants, Athena and Hera, only used one type of placement. They did not experiment with alternatives. For both participants, this was linked with their strong pre-dispositional pedagogical beliefs (discussed later in this section) as to how a lesson should be undertaken. Their commitment to these beliefs did not leave room for experimentation with alternatives. However, I feel this might have resulted in missed opportunities for these participants to further expand their horizons and add to their inventory, slightly altering their beliefs. Evolving and altering existing beliefs is a well-cited aim of continuous professional development (Glackin, 2016).

Student-orientated factors identified by my participants as having an effect on both the design of graphic organisers and their placement during a lesson

All of my participants discussed the factors that affected their decision as to the type and mode of graphic organisers to be used in their lessons. These factors were predominantly student-oriented. The most dominant student-oriented characteristics that all my participants referred to were: student's needs, student's learning characteristics, student's learning profile and student's reactions to the various types of graphic organisers. In Hera's words: *"That's what I like, flexibility according to my students"* (Hera, Interview 3). Grounding the design of a personalised teaching approach to the individual needs of students has been discussed extensively in the literature (see chapter 4) as it is believed that low self-esteem, feelings of failure and low motivation, often provoked by difficulties in following the mainstream classroom lessons, adversely affect the development of reading skills and student performance (Frith, 2001; Griffiths & Stuart, 2013). De Bueno (2008) further argues that teachers found graphic organisers helpful in that these could be modified based on the individual abilities and strengths of students with reading difficulties. She also suggested that students' learning characteristics

evolve over time and graphic organisers have the potential of being used as a monitoring tool and could have compensatory effects as students mature in their learning.

Artemis consistently referred to the fact that the selection of the most appropriate mode of graphic organisers depends on the student's needs. De Bueno (2008) argues that instruction should be individual and it is deemed beneficial when teaching strategies used allow for acquisition of transferable cognitive and metacognitive skills.

> *"With my student we had the issue that he could not concentrate at all and could not remember any part of the story we read even though I gave him the map at the end. So I thought it was my duty to change how I use it. I gave him different colour pens and asked him to circle the relevant information in different colours. Then I told him that we needed to create a picture with the circled information together. And it worked! He saw it as a game and we created a story map together. Of course, we had some jokes, for example putting the name in the centre and then the main problem of the story in the far-right corner which didn't make sense as they weren't connected, so that he could understand that the map needs to be coherent. And he was so happy. That made me happy too"* (Artemis, Interview 2).

As Demetra further reported: *"Not one size fits all. The complexity or simplicity of the graphic organiser depends on the individuality of the student, on their needs"* (Demetra, Interview 2).

All my participants focused on the importance of knowing their student's learning characteristics and learning profile. The learning profile is one of the four key factors (along with readiness to learn, prior knowledge and personal interests) that Loizou (2016) discusses as affecting the use of differentiated teaching in Cypriot schools (see chapter 4). My findings reinforce this argument, noting that knowing the student's learning profile is a powerful indicator for the success of differentiated teaching.

> *"The type of organiser really depends on what kind of learner the student is. […] It is essential as teachers to know how our students learn best, if they learn better with a simple five box map then that is what it should be used. If the student needs a map that simply has the layout of the story and they are required to fill it in, because they lose concentration otherwise, then that is what should be used"* (Athena, Diary Entry 1).

> *"The student I am working with for this project is a mostly acoustic type. He is easily distracted if he is required to read a text. […] I don't think I would use a complex graphic organiser that contains only words in the boxes, especially where the student is now"* (Hera, Diary Entry 2).

Feldman (2007) reports based on his research with primary school teachers that teachers want to empower their students as learners rather than merely meet learning targets. Teachers place more gravitas in responding to their students' learning styles and acknowledging students as individuals, modifying their teaching practices accordingly. Considering the teaching of students with reading difficulties in particular, De Bueno (2008) argues that students' characteristics change over time and this is affected by the learning process itself. Students' characteristics, needs and learning styles can be taken into account through the development of autonomous and independent learning, thus focusing on meeting individual needs as these evolve (De Bueno, 2008). These arguments are reflected in my data as well, with all participants highlighting the importance of acknowledging the individuality of each student and teaching them based on that, finessing their teaching practices as the student develops as a learner.

All five teachers highlighted that the potential use of graphic organisers in the classroom also depends on the student's reaction to their use as well as their feedback. This comment was replicated across all interviews and was distinguished during the classroom observations I undertook. The teachers seemed to be motivated to experiment further with alternative types and modes of graphic organisers based on the feedback they received from their students. The most popular student reactions and responses highlighted by my participants were as follows: a) sustained effort levels during lesson, b) sustained interest and focus

levels during lesson, c) student feeling happy after lesson conclusion and d) students being more confident to participate in the lesson.

> *"When you see the student trying, when you see them understanding and changing their way of thinking because you used graphic organisers, then you try to maintain that feeling and reinforce their effort by using them [graphic organisers] more frequently and experimenting with different types"* (Artemis, Interview 3).

> *"They might look at you strangely initially, but if at the end of the lesson the application of the organiser is successful and the student is happy and has retained their interest levels throughout, then I am doing my job right. Offering the student something different, at least once, something to keep them motivated and interested"* (Athena, Interview 2).

Acknowledging differentiated teaching as a philosophy (discussed in chapter 4), teachers adjust their teaching approaches based on their learners and their individual potential and differences (Tomlinson, 2012). This student-orientated dimension in teaching, was highlighted in my research as well. All five participants placed great importance on helping their students reach their individual potential. They all elaborated to a great extent both during their interviews and in their diaries on how the use of alternative teaching tools and, in fact, the way they used graphic organisers in their lessons, was based mostly on student-related factors such as their learning profile and individual needs.

World view: Does it affect the deployment of graphic organisers?

World view (as I have discussed in chapter 1), refers to the pre-disposition of attitudes, the belief system and perceptions that a person holds. The pre-dispositions held by a person emerge from experiences, cognition and past behaviours, and affect how a person responds and behaves in future situations (Spillane, 2004). In terms of teachers, the literature suggests that understanding their attitudes and beliefs is a prerequisite to exploring their classroom practices (De Bortoli et al., 2010) and their professional learning and development (Gu & Day, 2007). In line with findings from other studies (Pajares, 1992), my data analysis reveals that world view plays a

central role in teachers' decisions as to how they deploy graphic organisers in their classrooms and how they experiment in their teaching in general. I have also found that world view is a key factor affecting the willingness of teachers to participate in research and experiment with alternative teaching tools, which I will discuss later in this chapter.

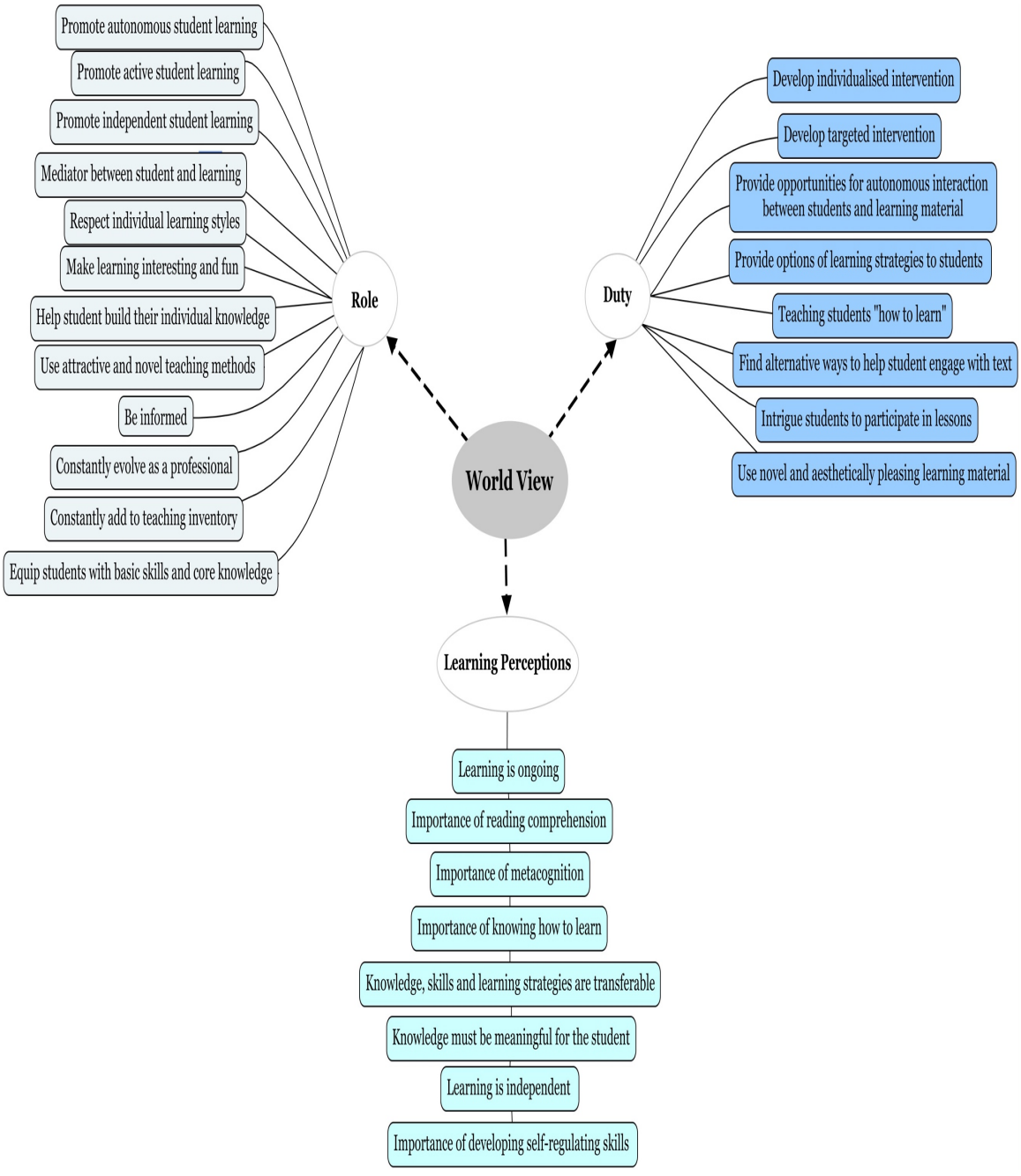
When looking at amalgamating the pre-dispositional beliefs, perceptions and attitudes of my participants, I noted a variety of codes in respect of their world views. During the data analysis, I clustered these into three categories: their role as special education teachers; their duty as special education teachers; their perceptions towards what constitutes learning. However, in doing so I acknowledge and respect the fact that each teacher is differently situated (Spillane, 2004) and develops a situated identity (Sammons et al., 2007), whilst their professional practices depend on the context of their classroom (Almas & Krumsvik, 2008; Ball et al., 2012).

I also want to highlight that the word "duty" I have used to name one of these categories, bears a more complex and deep meaning in Greek than it does in English. I found that this word was an interesting way that my participants used to describe dimensions of their professionalism, reflecting the cultural and linguistic context of my research. In Greek, the meaning of this word, apart from the stricter meaning referring to obligation and responsibility, also has a second more flexible dimension used to refer to profession, professional aims and finally the professional role and identity.

In addition, I selected these three categories (role, duty, learning perceptions), following existing literature (Jones & Riley, 2017), allowing for some comparison and a clearer placement of my findings within the existing literature. It has been argued that the role of the teacher is practical with the intention of implementing the curriculum (Connelly & Ben-Peretz, 1980). However, as education studies have evolved, importance is being placed on the duty of teachers to be responsive to the situated classroom context and individual needs of students with their role regarded as facilitators in supporting meaningful student learning (Jones & Riley, 2017). Concurring with this contemporary lens, I believe that the role of the teacher is to

facilitate this journey in as many ways possible (Bieg, 2011). Across all my data sets, and in particular the diary entries, provided by my participants, I noted that when my participants tried to dissect what learning means for them, their comments tended to focus on how knowledge is generated and transmitted, their aim of promoting active student learning, increased reading comprehension levels as well as metacognition. Graphic Organiser 7.3 presents some of the most popular terms that my participants used, across all interviews and diary entries, attributable under each of the three main categories.

Graphic Organiser 7.3: The most popular terms used to describe their world view



Once I identified the world view of my participants, it was clear to see how this was reflected in how they deployed graphic organisers in their lessons. The descriptions they used and the sentiments they expressed are indicators of how powerful pre-disposition is and how (consciously or unconsciously) it guides the professional practices of teachers. This finding concurs with existing literature arguing that respecting the world view of teachers is unavoidable as it guides and affects teaching practices (Hamachek, 1999). However, I also acknowledge Jarvis's (2006) argument that experience and experimentation alter knowledge, skills and attitudes so that the person evolves and engages in continuous professional development and their world view becomes refined. Thus, I acknowledge how important it was for my participants to have control over the design and implementation of graphic organisers.

Given the small number of participants, I want to briefly refer to each of them individually, in an effort to succinctly illustrate how their world view manifested in their teaching and deployment of graphic organisers.

Artemis

It was evident that Artemis's world view had infused her efforts. Her belief that learning is ongoing and the responsibility of the special education teacher is to be innovative and use a variety of techniques is seen in her comment that special education teachers have *"a thirst and a need to keep experimenting and trying"* (Interview 2). Reflecting back on the use of the graphic organisers she deployed, I could see that her world view was evident through her lessons. During two of the three lessons, she used graphic organisers to discuss the issue of Emotional Intelligence as well as discussing exceptional verbs. During her interviews, Artemis also mentioned the use of graphic organisers for maths, presenting an example she had used with the student. The fact that she did not focus only on reading and reading comprehension as learning objectives for her students, echoes her pre-dispositional beliefs as to her role and duty as a special education teacher to:

> "*use attractive techniques and methods to offer students important skills to be autonomous as individuals in society, as well as some important knowledge"* (Diary Entry 1).

This also resonated throughout her interviews, where she reiterated the importance of students having options to choose from during their learning, perceiving the use of graphic organisers to be one of those options. I have linked this argument with the importance of metacognition and the potential of graphic organisers to be used as an acquired learning strategy transferable in other contexts, discussed earlier in this chapter.

Hestia

Hestia was the teacher who had the most reservations about the use of graphic organisers for reading comprehension. This was made explicit from the beginning and during the first interview she commented:

> *"I don't believe we should so effortlessly present the information to the student without them making any effort in locating them in the text. I am concerned by this"* (Interview 1).

The fact that she held the belief that student learning should be autonomous justified her motivation to experiment with graphic organisers as a writing prompt for short essays rather than for reading comprehension. She specifically said: *"I cannot be there to provide the answers to them"* (Diary Entry 1). In addition, she considered that learning should be linked to the personal experiences of students drawing on their examples from real life which was also seen through her lessons (use of graphic organiser with pictures and no text for student to create a story based on their experiences).

Athena

Athena's practices were also guided by her world view. She placed gravitas on learning being transferable, thus she promoted activities that required active student participation so that they could understand and acquire knowledge on their own accord, wanting to *"teach students how to learn and not passively transfer information"* (Diary Entry 1), in order to *"prepare the students to be good people able to independently and adequately function in society"* (Diary Entry 1). As discussed earlier in this chapter, she used two different semi-complete graphic

organisers during each lesson whereby student engagement was high with the student required to fill in the graphic organisers following a discussion with their teacher.

> *"To teach students how to learn and not transfer information and knowledge that by the time they finish their formal education, can easily be considered redundant"* (Diary Entry 1).

Hera

Hera's world view seemed to also align with Artemis and Athena with emphasis being placed on the special education teacher's role to promote differentiated learning. This was reflected in her perspective of learning as well as reading comprehension. Hera repeated throughout her interviews that *"we need to see the bigger picture"* (Interview 1). She believed that learning is about metacognition and the acquisition of transferable learning techniques for the student. Botsas (2007) argues that the development of self-control, monitoring and planning skills are necessary cognitive processes that should be adopted by students engaged in active learning. Hera's convictions about promoting metacognition were evident throughout her lessons where there was no text used with graphic organisers deployed as a substitute. Her aim was to teach students what type of information is important to retain and how it can all be linked before proceeding to full texts. I observed that due to her belief that pen and paper should be redundant, and that their use in withdrawal classrooms should be minimal as these are exclusively used in general classrooms, she was more dedicated in engaging with alternative teaching methods and tools, such as theatrical play and deploying graphic organisers as a substitute for text. This is evidence of her beliefs as to what is her idea of a "good special education teacher".

> *"Why stress a student even more by forcing them to read and read and read from books, without even teaching them how to read and how to take out important information from the text they are reading. Successful reading is not about reading correctly from a book but above all is about comprehending what you are reading, organising their thought process, knowing what information is important and being able to retain that and*

use it and expand on it in future. […] We need to slowly transition students to text, and graphic organisers on their own without the need of text, do exactly that" (Hera, Interview 1).

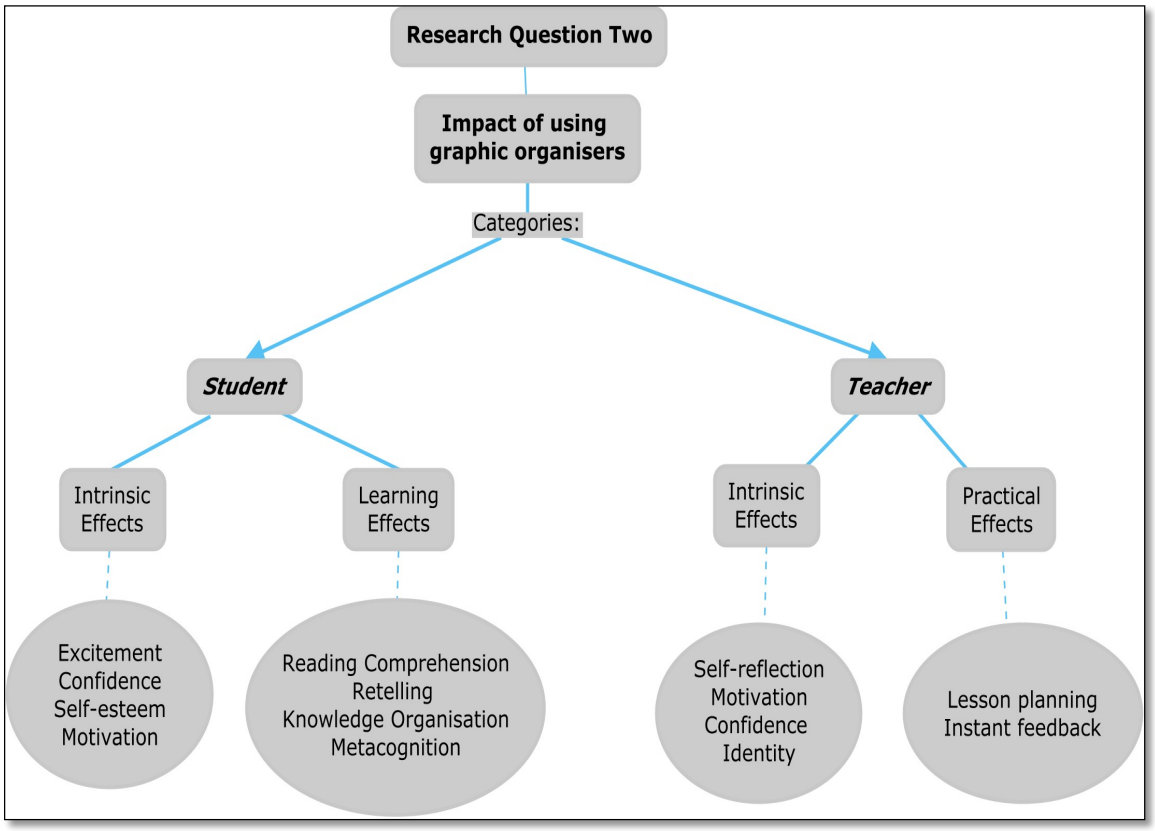
In short, responding to Research Question One, I would assert that the deployment of graphic organisers by my participants was varied. They took chances and experimented with their use. However, more importantly, my findings indicate that how teachers decide to teach and what method they choose to deploy is: a) highly embedded in their situated reality with student-orientated factors (their individual abilities, needs, skills and reactions) influencing their decisions; b) influenced by their world view which plays a major role in shaping their professional identity and informing their practice.

7.3 Research Question Two: What is the impact of using graphic organisers on student learning and teacher development?

This section discusses the impact of graphic organisers for teachers and their students. Again, during my in-depth analytic work, a variety of codes emerged. Here, I have narrowed these codes down based on how frequently they were reported by all of my participants. The refined list of codes formed the main themes and categories that I have included in this section. These are listed in Graphic Organiser 7.4.

The first category (impact on students) is split into intrinsic effects and learning effects. Intrinsic effects refer to the emotional impact that the use of graphic organisers had on the students as learners and focuses on issues such as motivation, confidence and autonomy. The learning effects refer to the performance of students during the lessons. The second category (impact on teachers) is examined against the intrinsic effects that graphic organisers had on the teachers as well as the practical effects in terms of their teaching. In this case, intrinsic effects refer to their professional and personal development in their role, whilst practical effects are seen against practical differences in their teaching effected by the use of graphic organisers.

Graphic Organiser 7.4: Main themes relating to Research Question Two



7.3.1 Students: Effects of using graphic organisers

Here I explore the effects of using graphic organisers on students, as the teachers have reported them. From my coding and analysis of the interview transcripts and diary entries as well as my classroom observations, I identified four common intrinsic effects on students. I have also included three learning effects: reading comprehension, practice of writing skills and metacognition. However, from the data I gathered, it appeared that teachers placed more weight on the intrinsic effects that using graphic organisers had on their students, rather than the practical learning effects, yet these learning effects play a role in influencing how a teaching tool is deployed and applied.

I note from my data that the teachers were more confident and found it easier to discuss intrinsic emotional effects for their students. I also found it easier to identify these effects during my classroom observations as some body language markers that are linked with emotional responses, such as a smile or clapping hands when a right answer is given, are easier to identify. On the other hand, discussing learning effects

of using graphic organisers for students, was not always easy to pin down in either interviews or classroom observations, as more targeted assessment tools would be needed to measure student performance and learning effects of using graphic organisers comparatively with other teaching tools. Such an endeavour exceeds the intention of my study. However, the learning effect is too important to exclude, hence I have decided to add it in this section.

The intrinsic effects

All five teachers claimed that the use of graphic organisers had an effect on their students as learners, in an intrinsic way. By intrinsic, I refer to issues such as self-reflection, motivation to learn, confidence in their abilities as learners and being autonomous and active learners. Kinchin (2000) discusses how promoting autonomous learning can encourage feelings of intellectual ownership by the students which boosts their confidence and motivation. Similar findings are discussed by Schunk (1994) who argues that when the student feels that they have made progress, their satisfaction, motivation and feelings of accomplishment are reinforced (see chapter 3).

One of the dominant emotions that all teachers used to describe this impact on students was a feeling of excitement. As an example, Artemis quoted: *"He was excited with his success. He was looking at it [graphic organiser] with triumph in his eyes. He was happy"* (Artemis, Interview 1).

Similarly, feelings of happiness by students at the end of a successful lesson were reported.

> *"Such happiness. I could honestly say that happiness was emanating from him. It's not easy for them, you know, and when they do well at school it makes them happy"* (Hera, Interview 2).

> *"When I see their responsiveness to such an activity, when I see them being happier during the lesson, it's vital. You saw my student. He was so happy at the end he was dancing on his chair"* (Artemis, Interview 2).

All five teachers also reported increased confidence and higher self-esteem observed in their students. This was a term that was noted in the majority of the interviews. I also observed during the classroom observations that students, who were initially reluctant, seemed more confident in subsequent lessons with their movement, body language and participation in the lesson being more "lively".

> *"Seeing the student more confident in writing a short essay on their own is like offering something meaningful to the student. It was evident from their reaction that there was a feeling of personal achievement which is priceless for a student who has learning difficulties"* (Hestia, Interview 2).

Where did the teachers attribute the intrinsic gains for their students?

When I was amalgamating the reported intrinsic effects, I wanted to identify any other factors that correlated with them. From my analysis, of teachers' responses, I concluded that the resulting boost of students' confidence was attributable to three characteristics: the visual attractiveness of graphic organisers; the sense of novelty of lessons that incorporate the use of graphic organisers; and the positive learning performance of students. This concurs with existing literature arguing that intrinsic self-motivation is facilitated by learning activities characterised by the aesthetic value, challenge and novelty (Ryan & Deci, 2000). Such contextual conditions directly impact and appeal to the sense of motivation in learners (Casteleyn et al., 2013).

The visual attractiveness of graphic organisers was an issue that was discussed across the majority of the interviews and in the diaries. This argument concurs with existing literature with Wallace et al. (1998) concluding that students presented with enhanced graphic organisers introducing more colour and a variety of shapes, outperformed students in the unenhanced map and simple text group on immediate and delayed recall tests. My participants argued that the provision of a graphic organiser which is *"aesthetically pleasing"* (Demetra, Interview 1) boosts students' confidence.

> *"It is clever to use graphic organisers. They are attractive visually for the*

student. It doesn't scare them because it's pretty and this boosts their confidence that they will do well in the lesson" (Artemis, Interview 3).

Demetra was one of the teachers who strongly believed that *"pretty"* and *"attractive"* learning material should be used more in teaching students with reading difficulties. The reasoning she used for this was, in her words:

> *"We keep saying that we want our students to be confident as learners. Using learning material that falls out of the ordinary and is attractive to look at, pushes the student to be confident and try harder. How hard can it be, when something visually seems easy and pretty, right?"* (Demetra, Interview 1).

This leads to the next characteristic that was discussed by all participants – the sense of novelty. All participating teachers commented that because graphic organisers *"are not ordinary"* (Hestia, Interview 1) and are not frequently used, awakens the students' interest and confidence. However, this conclusion is drawn with caution as there is the danger of graphic organisers also becoming ordinary with the students losing interest in them, if they are used too often. I also acknowledge the concerns of Hall et al. (2005) that the novelty of graphic organisers combined with the unfamiliarity of the students with their use may result in overloading the student cognitively, counter-affecting any beneficial effects they may have for the students (see chapter 3). This concern highlights the importance of experimenting with a variety of graphic organisers in an effort to maintain a sense of novelty for a longer period of time as well as account for sufficient time for the students to become familiar with their use.

> *"It's novel. It's not boring for them. Students get bored of constantly looking at texts. They like new material"* (Athena, Interview 1).

> *"My students will often say how bored they are and how tired they are of looking at texts every day. They like simplified versions of text, they like pictures, that's why I believe they are intrigued with graphic organisers so much"* (Hestia, Diary Entry 2).

The final characteristic that was seen to be interrelated with students' positive emotions and enhanced confidence was the enhanced learning performance the students had shown during the lessons that incorporated the use of graphic organisers. All teachers argued that because the students were more successful during the lessons, this had a positive impact on their confidence as well as their self-esteem. Casteleyn et al. (2013) argue that a strong sense of confidence is important for students as it reduces their anxiety when dealing with an assignment as well as giving them greater perseverance when they face difficulties in completing their assignment (see chapter 4).

> *"It [graphic organisers] gives them confidence. The feeling that they can work independently. Satisfaction that they did it on their own"* (Hestia, Interview 2).

> *"I found that because the students seem to have better performance during lessons with graphic organisers, it boosts their confidence and sense of achievement. They are excited and develop a feeling of self-worth and confidence in their abilities. As we all know, it is more common for students with learning difficulties to lack confidence. Seeing them doing well because of it [graphic organiser] it automatically turns those feelings into positive"* (Athena, Interview 1).

The learning effects

The learning effects of using graphic organisers have been explored with students of all age groups, from kindergarten (Cassata-Widera, 2008) to university students (Hay et al., 2008) (see chapter 3). This effectiveness has been examined against the quality of learning (Kinchin & Hay, 2000) as well as student achievement in relation to reading comprehension (DiCecco & Gleason, 2002) and writing skills (Sturm & Rankin-Erickson, 2002). As I have argued in chapter 3, the fact that the use of graphic organisers has, over time, developed and refined to respond better to students and classrooms, may justify the predominantly positive effectiveness of using them.

I expected that my participants would devote a substantial amount of time in discussing the learning effects that the use of graphic organisers had on their students, both during the interviews and in their diary entries. However, as I mentioned earlier, this was not the case. Thus, in this section I reflect only on the following core themes that were discussed by all five participants. These core themes are categories of positive learning effects that emerged from my coding and analysis, and are also terms that existing literature (see chapter 3) uses to examine the effectiveness of graphic organisers (Dansereau & Simpson, 2009; Dexter & Hughes, 2011; Merchie & Van Keer, 2016):

a) Reading comprehension
b) Practice of writing skills
c) Metacognition

a) Reading comprehension

As illustrated in chapter 6, the individualised lessons undertaken in the withdrawal classrooms were primarily focused on Modern Greek (reading, reading comprehension, grammar and syntax). Thus, understandably, one of the main learning objectives that was set by all teachers for the majority of the lessons I observed was reading comprehension. Therefore, I anticipated that this matter would have been extensively explored, especially during the interviews. The teachers aimed at facilitating reading comprehension by using graphic organisers to visually illustrate the main ideas in a text and the relationships between them, omitting details that were not deemed important. In this case, graphic organisers were considered as reading adjuncts (Vekiri, 2002) and as a scaffolding tool within the overall teaching methods utilised by the teachers (Kim et al., 2004). This aim is described below by Artemis and is a succinct indicator of the ideas that all participants expressed.

> *"It's worth it because the student does not get lost in a text. They have a diagram in front of them, an aid that helps them take the important information from a text. By the teacher creating the graphic organiser, the*

details that are not important for the student to retain, can be omitted. Thus, only the necessary information is retained for the lesson to progress" (Artemis, Interview 1).

The comment *"not lost in text"*, was a popular one amongst the teachers who referred to this idea when wanting to describe the benefits of graphic organisers on reading comprehension.

"Don't forget that students with reading difficulties can get lost in text. It's too much information on a piece of paper. Having a picture in front of them with less words, helps not to get lost in text" (Athena, Interview 2).

As was also evident from all the episodes that were described in chapter 6, reading comprehension was usually assessed through a written or oral retelling of the text. The teachers believed that in this way they could assess the levels of reading comprehension effectively and could easily compare these with previous performances of their students. Similarly, they believed that they could see the improvement, if any, as their experimentation with graphic organisers progressed. Overall, the teachers reported that their students were able to successfully retell a story, recalling the main ideas using the correct sequence of events.

"I have noted that when I present the graphic organiser before proceeding to ask the student to retell the story, their written retellings are better. They have a beginning, middle and end as the one in the original text" (Athena, Diary Entry 2).

The long-term impact on reading comprehension was explored by three (Hera, Artemis, Demetra) out of the five teachers. This was undertaken by asking the student to retell a story they had worked on with a graphic organiser in previous lessons. These three teachers reported that their students were able to recall the information better than they had anticipated.

"He could still remember all main characters of the story, their main actions and the solution they developed to solve their problem. To be honest,

I did not expect that. Even though I know their [graphic organisers] potential I didn't really believe that it would help the student remember the story still after a couple of lessons" (Artemis, Interview 3).

All participants characterised graphic organisers as *"visual representation of information"*, *"visual aids"* or *"pictures"*. However, I found that more often, the participants referred to graphic organisers as a *"summary"*, aligning with Schnotz (2005) who discusses the potential of graphic organisers used as a summarising tool. This was frequently related by my participants to the capacity of graphic organisers to summarise a text in a simple format for students to retain. As exemplified in existing literature, the non-linear layout of graphic organisers is characterised by a computational efficiency whereby information is made salient and highly descriptive, without the complexities associated with linear written text (Dansereau, 2005).

"They know that for the teacher to include this information in the boxes that means this is the sort of information that they should keep. They know that this is the summary of the text" (Hera, Interview 2).

b) Practice of writing skills

The objective of working on students' writing skills with the use of graphic organisers as well as their reading skills was equally important for two (Athena and Hestia) out of the five participants, even though these skills were briefly mentioned by all participants at some point during the project. I include this category as I believe that reading and writing are intertwined (chapter 4). This is a belief that also formed part of the world view of the teachers, discussed earlier in this chapter.

Hestia was excited to report the positive impact of using graphic organisers as a writing prompt for students to write a short essay. She discussed this potential in two of the three interviews and in two of her three diary entries.

"Using it [graphic organisers] in this way made me really happy. Because I know that at least I offer them a support, a scaffold, that my students climb upon and work by themselves. I want them to work and write during a lesson

and not just read information" (Hestia, Interview 3).

Similarly, in an effort to give reasons for using more semi-complete graphic organisers for students to fill in, Athena commented:

> *"I use semi-complete graphic organisers exclusively because the student should practice his writing skills, both in terms of syntax, grammar and appearance but also in terms of depth and imagination, meaning to be able to write a story. Graphic organisers help with all of these aims"* (Athena, Interview 1).

c) Metacognition

The issue of autonomous learning and how this is effected by the use of graphic organisers was referred to in all fifteen interviews and was high on the agenda of all my participants. They promoted the idea that teaching students about "how to learn" was important in the long-term superseding shorter-term learning objectives set during each lesson. This was also illustrated when teachers described the application (mode and type) of graphic organisers, cited earlier in this chapter. All teachers reported that autonomous learning was linked with the issue of metacognition as a learning effect. Metacognition or self-regulation (Lim et al., 2009) is the ability of the student to plan, monitor and reflect on the learning process as well as the academic task (Pintrich, 2004). This is directly linked with independent and generative learning environments that promote active student engagement and participation (Lim et al., 2009). My participants reported that the use of graphic organisers allowed their students to learn how to engage with information and become more autonomous in their learning. As was argued by my participants, presenting a graphic organiser as a visual representation of the main ideas in a text that was just read, provides the student with an alternative tool that they can use in the future to assist them with comprehending and retaining text information.

> *"That's what this is all about. Giving the student options, tools and methods they can use as scaffolds in many different applications. A text is just text. A paper with words. You cannot use it in any other way. A diagram, though,*

can be a map, with or without words. A map that can guide the student on what to keep from a text and how to learn" (Athena, Interview 1).

The teachers commented that using graphic organisers was also teaching the students about how to use graphic organisers as an acquired learning strategy. As Artemis discussed, the teacher provides alternative mediation aids, one of which is the graphic organiser and by learning how and why these are used, students might use them again in future interactions with text.

"By making it [graphic organiser] during the lesson, helps them [students] tomorrow in their education, in their life in general, when reading a text, what they should keep from a text, what is the knowledge that derives from it" (Artemis, Interview 1).

This idea was reflected by all five participants at some point during the study. All participants agreed that graphic organisers have potential as scaffolding aids for students to rely on and adopt as a learning strategy.

"When they familiarise with this tool, they know how to use it again, even when we don't provide it to them" (Hera, Interview 2).

Metacognition, as I discussed in chapter 3, also refers to the ability of a student to select the appropriate cognitive approaches required for each learning task. In addition, it involves the ability to assess a learning task and monitor learning strategies, performance and ultimately the comprehension of a text (Botsas, 2007). All five participants highlighted the importance of prompting their students to develop metacognitive strategies. They believed that the automatic feedback provided to the student when using graphic organisers assisted with this.

"By filling in blank boxes, within a clear layout, serves multiple purposes. It allows the student to actively assess the information from a text to decide what information will make it to the organiser. It also allows them to automatically know if their action is correct as the organiser will tell them if what they insert does not match the adjoining box. Feedback is automatic"

(Artemis, Interview 3).

7.3.2 Teachers: Effects of using graphic organisers

Part of the data I collected concerned the use of graphic organisers and their applicability in relation to the teachers themselves. My data analysis identified four main themes: self-reflection on teaching practice, motivation to teach, confidence in their abilities, and their professional identity as teachers. These personal-based terms were used extensively across all interviews and diaries. However, when I was considering the codes that I had collated from my data analysis, I noted that my participants did not elaborate to any great extent on any practical effects that the use of graphic organisers had on their teaching. My participants were focusing more on examining the effectiveness of deploying graphic organisers based on personal factors, whilst also looking at the intrinsic effectiveness of using graphic organisers for their students. However, two themes relating to the practical effects of using graphic organisers were apparent, these being lesson planning and instant feedback, and these are included in this section.

Intrinsic (personal) effects

All five participants highlighted the importance for a teacher to reflect on their teaching practice on a regular basis, which aligns with Orland-Barak's (2005) claim that the role of the teachers requires reflective and critical skills to be able to improve their practice. My participants commented that considering their students' individual differences and needs required them to reflect on whether the practices they use are effective or whether changes had to be made.

> *"If I am not happy with the outcomes of my teaching I need to be able to examine why. What did I do wrong? That applies to all techniques. If my lesson with the graphic organiser was not as effective as it should be, I need to reflect and see what changes I could have made. Should I have used a simpler format or ask the students to create it?"* (Hera, Diary Entry 1).

Referring to their lessons incorporating the use of graphic organisers, my participants reported that they were more alert to changes in their students' performance and were in a stronger position to assess their teaching.

> *"Experimenting with graphic organisers gave me the possibility to compare results. I see now that visually attractive material might be more suitable for my student"* (Hestia, Interview 3).

All five participants repeated throughout the interviews and diary entries that their motivation was boosted as a result of seeing students perform well and maintaining their interest and active participation in the lesson. This was also observed during the classroom observations whereby the teachers' excitement with the students' performance was "tangible".

> *"I am very pleased to see my students move from 0 to 1. Their positive reaction to this [graphic organisers] has boosted my confidence to keep going and keep searching for innovative material"* (Artemis, Interview 3).

> *"Experimenting, even if you are not sure of its potential, and seeing that it might actually have an effect gives the teacher the extra push, the extra motivation they need to continue"* (Demetra, Diary Entry 2).

During the interviews and evidenced in the diary entries, confidence and motivation were concerns that went hand in hand and seemed highly dependent on students' reaction and feedback about their teaching.

> *"Seeing my student working on their own writing their short essay, gives me pleasure and confidence that what I do is working"* (Hestia, Diary Entry 2).

One key topic that my participants raised, was about their identity as teachers and how this was affected by their experimentation with the use of graphic organisers. The participants referred to their personal identity and how they identify themselves in their role as special education teachers and this was a factor in their choosing to be part of the project and persisting with using graphic organisers. Here, I present a quote by each of the participants to highlight the gravitas of the identity factor.

"It's my duty as a special education teacher to find a way to at least help my student read, understand and recall an entire text. That's what I am asked to do" (Artemis, Interview 1).

"I don't want to be a boring teacher. I want to try something new and innovative at least once and keep my students motivated" (Athena, Interview 1).

"Developing their skills for them to work independently is important to me. As their support teacher that's my main aim" (Hestia, Interview 3).

"A good special education teacher does not use special, ready-made magic potions. A special education teacher is a good teacher who analyses an idea, a new technique and adapts that idea so that it could work for her students" (Demetra, Interview 2).

"It's a battle to constantly trying to find new tools. It's important though not to give up and experimentation like this one is needed to fulfil my duty as a teacher" (Hera, Interview 3).

Practical effects

Teachers reported that designing their lessons to incorporate graphic organisers helped them identify the key knowledge elements that were to be retained and extracted from the lesson, keeping themselves focused. In addition, all teachers felt that creating a graphic organiser helped them plan more efficiently.

"Creating it [graphic organiser], I find that it organises my thoughts better. I mean whilst I was creating the boxes and writing the information in them during the narration, I found that it was even easier for me to recall the story, because I had it organised in my mind" (Hera, Interview 1).

The second significant practical effect of using graphic organisers that was reported by all participants was the feedback that they received during the lessons that incorporated the use of graphic organisers. This feedback was related to the success

of the lesson and the performance of their students.

> *"The assessment of student performance is effortless with a graphic organiser. You know what they learned and what not"* (Hera, Interview 2).

> *"It saves you time. You don't need 100 activities to assess the student's performance. One semi-complete graphic organiser which the student fills in is enough"* (Hestia, Interview 3).

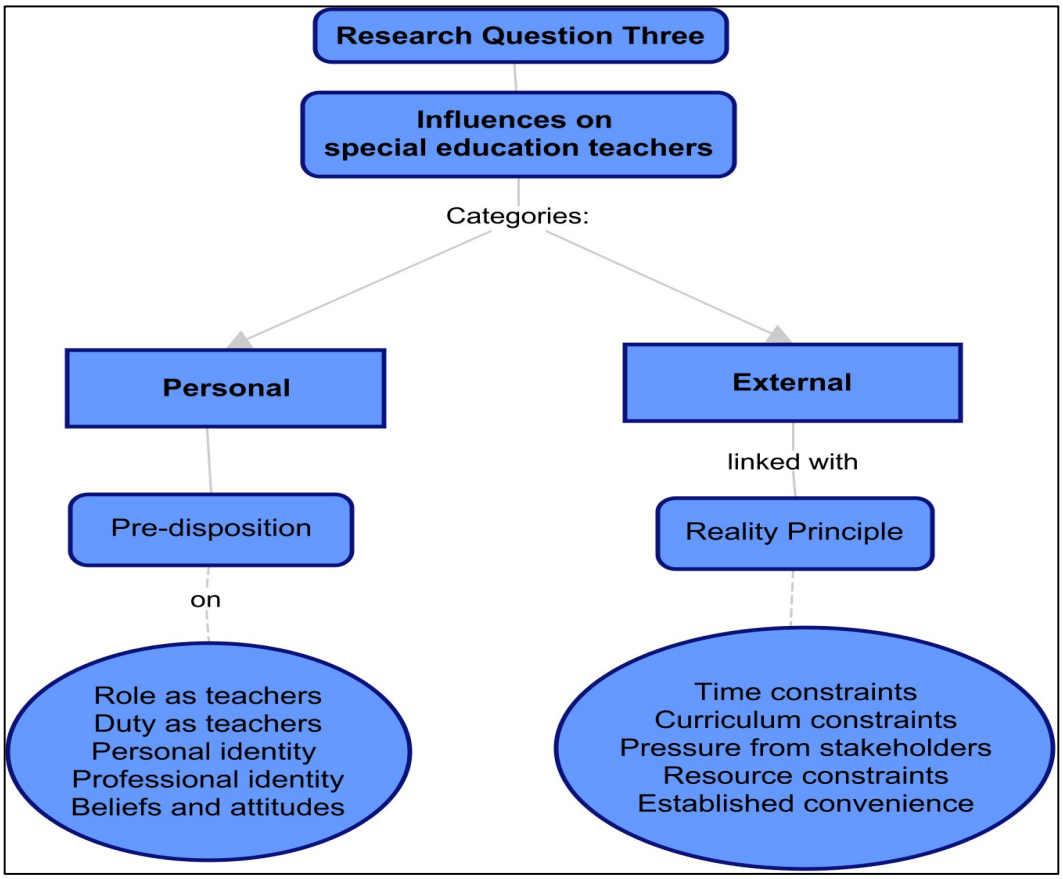
In short, in responding to Research Question Two, my findings indicate that my participants placed greater weight on the personal effects that the use and deployment of graphic organisers had on both themselves and their students. They elaborated to a great extent in respect of these effects, only briefly discussing practical effects. Strong emotions of confidence, self-esteem, excitement as well as identity and self-reflection were cited by all my participants and which I was able to observe. I believe this is a reasonable conclusion as practical effects would require a more systematic assessment using specific and targeted assessment tools.

7.4 Research Question Three: What influences special education teachers to change and develop their professional practices through innovative approaches?

As the study was progressing, my participants tended to focus less on the practical deployment of graphic organisers and focus more on the wider dimension of experimenting with their teaching incorporating innovative approaches as well as the factors that had influenced them to engage with such experimentation. My data suggested that the issue of change and experimentation should be explored against two main themes: personal and external influences. The personal dimension includes influences that relate to the teachers themselves. Casteleyn et al. (2013) linked this aspect with self-determination and self-motivation. The external dimension refers to using a teaching method and tool to reach external purposes and goals (Casteleyn et al., 2013). The external dimension includes constraints that negatively impeded the teachers' experimentation with graphic organisers (as reported by my participants). Both themes are presented in Graphic Organiser 7.5

below.

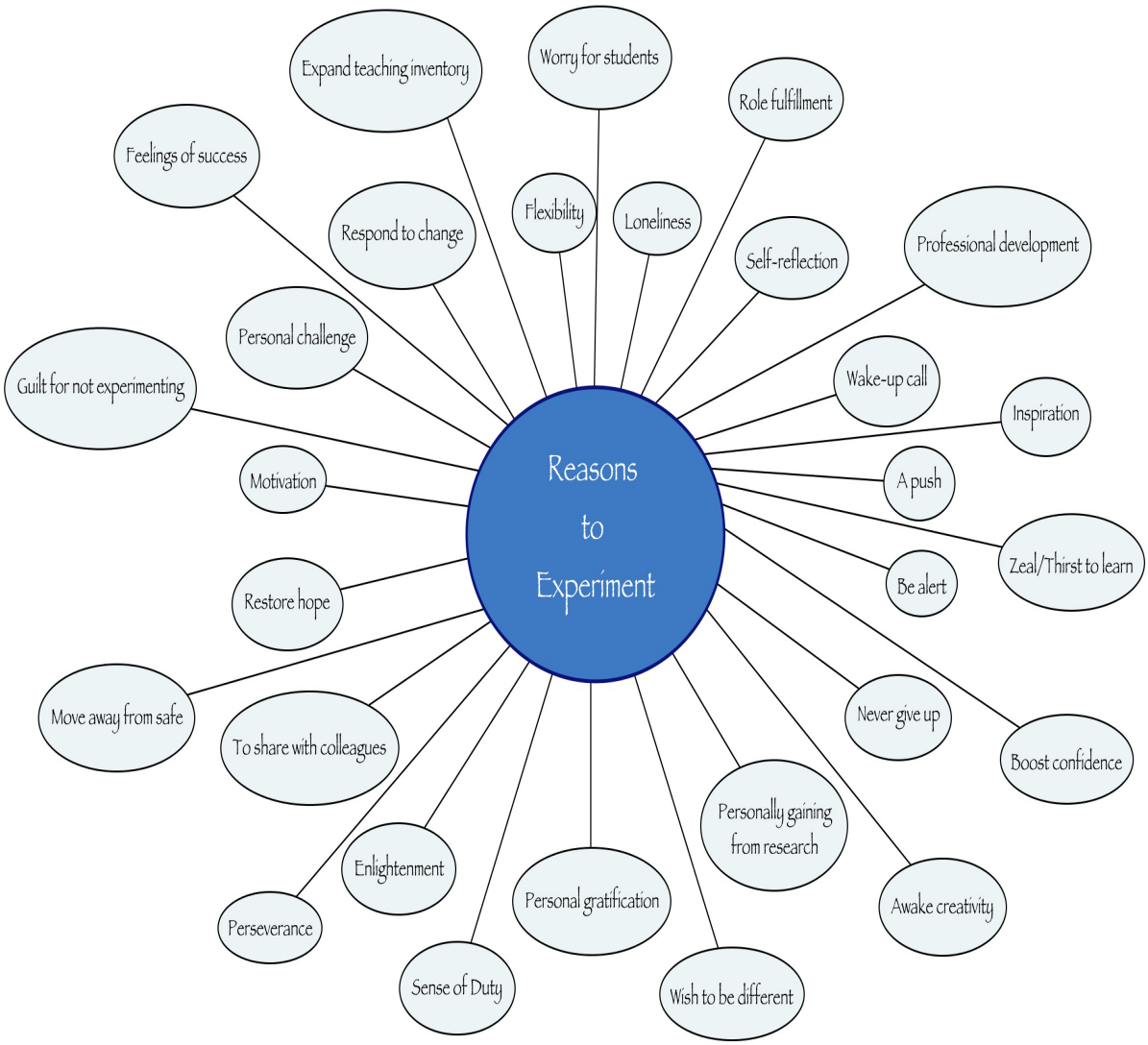
Graphic Organiser 7.5: Main themes relating to Research Question Three



7.4.1 Personal dimension

In order to navigate through the influences as well as the issues that may have arisen during the experimentation of teachers with the use of graphic organisers within withdrawal classrooms, as well as the prospect of further experimentation with innovative approaches and practices, I believe it is useful to start by exploring the world view of the teachers. As I have discussed earlier in this chapter, world view consisting of the pre-disposition of attitudes, belief systems and perceptions that a person holds, play an integral role in how teachers teach affecting their decisions as to whether they are willing to experiment with alternative teaching tools. Therefore, this section begins with an interrogation of the dominant complex reasons (embedded in their world view) cited by my participants as to why they chose to experiment with alternative teaching tools and why they chose to participate in my research (Graphic Organiser 7.6).

Graphic Organiser 7.6: Why experiment?



I discovered that there is a complexity in trying to interpret and amalgamate the embedded world view of the teachers and this had much to do with the fact that this world view is highly bound with their situated reality, their withdrawal classroom, their personal stories and experiences. When charting these reasons, it became clear that the teachers held clear core values and beliefs which they referred to when justifying their willingness to experiment in their teaching. My participants seemed to share a deep commitment to expand their teaching inventories with new teaching tools, by constantly seeking and experimenting with alternative options. This commitment permeated all interviews and was repeated in their diary entries. Their zeal was almost tangible during the classroom observations.

My participants elaborated on the issue of special education teachers struggling to maintain student interest during lessons, acknowledging the context of a withdrawal classroom.

> *"We cannot afford for our students to lose interest or feel de-motivated. We keep searching and searching for something new. Something new that could work, something that could be adapted based on our children's needs"* (Artemis, Interview 3).

Their belief that learning is ongoing and the responsibility of the special education teacher is to be innovative and use a variety of methods is also seen in Artemis's comment that special education teachers have *"a thirst and a need to keep experimenting and trying"* (Interview 2). I concluded that these beliefs are what encouraged the teachers to participate in my research as "*it gave ammunition and restored hope"* (Hestia, Interview 2). They characterised it as *"a push to experiment and not pre-planned in terms of material we had to use"* (Demetra, Interview 2). They were able to engage in self-reflection and self-critique which allowed them to experiment further, expanding their professional identity and engaging in continuous professional development.

However, the most popular reason influencing experimentation, was motivation as professionals and seeing it as a challenge, due to their conviction of the power of alternative teaching methods, teaching tools and learning material. They believe that the teacher should be motivated to experiment with any method and tool in their aim to be effective.

> *"We need to constantly be reflective in our practice. We need to offer a variety of teaching experiences to the student using different learning materials whenever possible. This is what motivates us. I was willing to participate as this was an experience for me. Something different that would make me think and reflect"* (Athena, Interview 3).

Flexibility in teaching and the ability to experiment was also reinforced by their

conviction that sharing experiences between colleagues is important with ideas not getting lost due to lack of motivation by the teacher to experiment. As an example, Demetra made an insightful comment on this point:

> *"Our profession, especially those who work in withdrawal classrooms, can be lonely sometimes. Sharing and motivation and willingness to experiment with adaptable tools is needed. I feel that we are all a team and should share ideas. Like you shared with me, seeing that is effective I will share with other colleagues and so on. We need new ideas that can be adjusted based on our students"* (Interview 3).

7.4.2 External dimension

This section focuses on the perceptions of teachers relating to the constraints adversely affecting their experimentation with graphic organisers, as well as reflecting on these constraints against the situated context of the withdrawal classroom. Through my analysis, I concluded that the factors that fall under this dimension relate to what I call in my thesis, the reality principle, that affected teachers' experimentation. Indeed, these constraints frequently caused the teachers to struggle with implementing graphic organisers in their work. These factors were emphasised by all participants and I felt that these hold the greatest weight influencing their teaching approaches, decisions and experimentation in general. The reality principle consisted of the following factors, which will be individually analysed in this section:

- Time constraints: This category of factors refers to constraints imposed on teachers in terms of their lesson preparation time, time needed to teach their students how to familiarise themselves with a new learning strategy as well as short teaching periods in withdrawal classrooms.
- Curriculum constraints: This refers to the increased workload experienced by the teachers and the reported demands of the new curriculum.
- Pressure from stakeholders: By the term stakeholders, I refer to school management, colleagues and parents.
- Resources constraints: Here I refer to the practicalities faced by the teachers in

their teaching practices, arising from limits and in some instances, lack of teaching material, limited access to ICT and other forms of alternative instructional tools.

- Established convenience: I developed this term, in an effort to amalgamate all codes and referents that my participants used to refer to the safer, the convenient, the more familiar and more traditional options in terms of their teaching methods and tools. These formed established "safety net alternatives" for coping with restraints and limits as opposed to new and innovative tools, such as graphic organisers.

Time constraints

The issue of time as a concept and what it meant for the teachers seemed to change as the study progressed. In the initial stages of the study, all participants referred to the time and effort required for them to engage in lesson preparation incorporating the use of graphic organisers. In particular, their concern as to how much time would be required for them to design a lesson with a graphic organiser was highlighted in their initial diary entries as well as their first interviews. This concern, however, seemed to have diminished as their experimentation progressed from application to application. In addition, the concept of time evolved from being in relation to the time constraints imposed on them as teachers preparing for their lessons, to the time constraints relating to their students familiarising and adopting the use of graphic organisers as an acquired learning strategy with the possibility of being used in future learning events.

> *"We all dedicate personal time to prepare for our lessons. However, I am not certain as to how viable it is to devote time in designing a graphic organiser for the texts that I will be using"* (Athena, Diary Entry 1).

Hestia, who was the participant who was most concerned with the time constraints, referred specifically to her family life as well as school life imposing constraints on how much personal time could be devoted towards her experimentation.

> *"I don't know if this is something that I could be doing in the long-term. I have a baby and also I am required to visit four different schools each week*

and teach ten students. I am not sure if I can be doing something so laborious for each of those students, when I am preparing at home. Practically I don't think it is realistic" (Hestia, Interview 1).

Similarly, Hera mentioned that despite being under a lot of pressure in her personal life affecting how much time she needed to prepare at home, she found that the flexibility of graphic organisers made it easier for her to use them.

> *"I confess. When you first approached me I was under a lot of pressure at home. I had a lot going on and was worried as to whether I could commit to this. […]. However, seeing how flexible they [graphic organisers] are and the possibility of not even needing to prepare them at home, but design them in class during the actual lesson alleviated my worry in respect of time"* (Hera, Interview 3).

Even though the other three participants did not refer to their own personal life affecting their preparation time, this issue did come up.

> *"How focused a teacher is in researching and experimenting with a new tool depends on how busy they are in their personal life. I might not have children, but I know that if you have a family to look after, lesson preparation time at home is dramatically reduced"* (Demetra, Interview 1).

However, the teachers' initial reactions and concerns in respect of the time constraints in preparing for their lessons changed over the duration of the study and from interview to interview their comments were different, highlighting that *"once you do it a couple of times, it gets easier"* (Hestia, Interview 3). This denotes a level of familiarity with designing graphic organisers, which grows with time and once the teacher has the opportunity to work with graphic organisers for a longer period, they feel more comfortable in designing them.

> *"When you are familiarised with the various alternative uses and designs it has, and work on it then you can do it faster. I think it is the same with all teaching tools. I remember when I first started teaching, even the need to*

simplify a text in a shorter version scared me. Now I can do it with my eyes closed" (Artemis, Interview 2).

I also found that their experience of working as a special education teacher influenced how the teachers regarded experimentation in relation to preparation time for lessons. Hera and Demetra had been working for 14 and 15 years respectively and this experience seemed to give them an advantage and confidence in using graphic organisers without too much prior preparation. Hera referred to the possibility of cutting preparation time by creating graphic organisers in the classroom and she did so during all three observed lessons, where she used graphic organisers as a substitute for text. Demetra used semi-completed graphic organisers as well as creating one during the lesson, confidently commenting: *"You can use it there and then in the classroom, not needing time at home where you have other obligations to attend to"* (Demetra, Interview 2). The other three participants had worked as special education teachers for under ten years, which seemed to impact the way they regarded lesson preparation and experimentation with new teaching methods and tools. Athena commented: *"I am not so confident in improvising in the classroom yet"* (Athena, Interview 2).

In addition to the concept of time and the actual constraints imposed on teachers themselves changing as the project progressed, time also influenced another factor that affected the students' performance in the classroom. The teachers seemed to be increasingly concerned with the time needed for their students to familiarise themselves with the use of graphic organisers. They argued that despite engaging in designing graphic organisers and that preparing lessons became easier and faster with time, they were still concerned as to whether using graphic organisers was feasible for students, as they needed time to be comfortable with such a strategy. As mentioned earlier in the chapter, participants placed importance on providing students with metacognitive learning strategies that could be used in future. However, my participants considered this time-consuming.

"Having used it for some time now I can see it is effective. The student did better in reading comprehension but he is also more confident and excited. However, it's something that needs dedicating a lot of time in adapting to

lessons that include graphic organisers. Do I have the luxury of time in my classroom? No. You see how we work, I have little time with my student and a lot of things to teach. Time flies" (Hera, Interview 3).

Curriculum constraints

My participating teachers were also concerned with the curriculum constraints that were imposed on them as a factor affecting their experimentation. Some time ago, Tomlinson (1990) argued that teachers have no control over the curriculum and can only control the objectives set for each student to correspond to the given curriculum. My participants referred to the demands of the new curriculum that was being implemented in primary schools in Cyprus (see chapter 2), as well as the paperwork they were required to attend to throughout the school year. The curriculum constraints seemed to be highly inter-related with time constraints. My participants reported that they felt under pressure to familiarise themselves with the new curriculum and learning targets in a short period of time whilst also wanting to be creative in their teaching.

"We are asked to implement the new programmes but it is actually like fitting a camel through the eye of a needle. It's just not possible in the short period of time we have with the students" (Hestia, Interview 2).

"It is interesting how teachers are required to promote independent learning for their students but having to tick off so many boxes in terms of how many texts they need to teach. The curriculum context is immense but there is not too much time for the teacher to be able to teach the student how to be independent" (Hera, Diary Entry 2).

When discussing my research project in relation to the curriculum demands, Demetra commented:

"It was motivational to be gently pushed into experimenting with graphic organisers, because the demands placed on us as special education teachers who are often expected to do miracles and cover a wide range of curriculum targets, do not leave much time for the teacher to research

other methods and learning material" (Demetra, Interview 2).

Referring to the paperwork teachers need to attend to, the participants commented that this work frequently detracted from their willingness and excitement in using a new teaching method and alternative teaching tools and material. They displayed emotions of deep frustration and concern, which were evident in their powerful comments and I could also observe these during their interviews. For context, the paperwork entails:

- Μηνιαίος Προγραμματισμός translated to Monthly Programming. This is effectively the preparation of the projected learning targets to be achieved for each student and is prepared at the beginning of each month.
- Ατομικό Πρόγραμμα Εκπαίδευσης translated to Individual Education Programme. This is a detailed evaluation of the student and what is projected for the student to achieve throughout the school year. This is prepared each October.
- Ετήσια Αξιολόγηση translated to Annual Assessment. This is the final report that the teacher prepares at the end of the school year in June, assessing the performance of the student against the targets set in October.

> *"Considering that this is a laborious exercise that we need to do every month, in addition to the lesson preparation, it is not hard to understand why teachers may be reluctant to use alternative teaching tools and stick to the traditional"* (Hera, Interview 3).

> *"I don't know why we waste time doing these things. Does anybody read them? They want to know how much curriculum we intend to cover in a month for each student. However, they tell us to be creative. How do you expect us to be creative when we are imposed with so much paperwork and curriculum each month?"* (Hestia, Interview 2).

Finally, all five participants often referred to their mainstream classroom colleagues when discussing the issue of time and curriculum constraints. They were sympathetic towards them and how these constraints affect the application of

innovation in mainstream classrooms.

> *"Even though it's [graphic organisers] time-consuming sometimes, I believe it is a lot easier to use it in withdrawal classrooms rather than in the mainstream classrooms. Those teachers are under a lot of pressure too to meet targets and performance indicators for all their students. It's different kind of stress but it is still a concern that affects how we experiment with innovation in our classrooms"* (Demetra, Interview 2).

Pressure from stakeholders

One matter that puzzled all my participants and seemed to affect their capacity to experiment was the pressure that the teachers felt that they were under from some key education stakeholders. By stakeholders, I refer to the school administration (Ministry of Education and Culture and head-teachers), colleagues and parents. This pressure felt by the teachers may be aligned with the issue of responsibility and accountability established in many countries. Feldman (2007) argues that teachers are accountable to the school administration who is ultimately their employer as well as to parents, and he provides the example of the United States whereby the teacher is considered as in loco parentis and is liable for students' achievement and learning. In my interactions with my participants, they all commented that they felt under constant scrutiny by the school administration as well as the parents. My participants used strong language when discussing the issue of pressure. They characterised this issue as *"battle"* (Hera, Diary Entry 3), *"constant judgement"* (Artemis, Diary Entry 2), and even *"torture"* (Hestia, Diary Entry 3).

All my participants reported that the instructions they received from the Ministry of Education and Culture through the visiting school inspectors as well as the head-teachers, were often conflicting causing additional stress.

> *"The vising inspector always says that we have a duty to be creative and keep our students constantly interested. On the other hand, they are the ones who will look at you with concerned eyes if you don't tick all the boxes of the curriculum targets that should be met each period. They need to help me, give me more time to experiment if they want me to be creative"* (Hestia,

Interview 3).

> *"The head-teacher saw on my Individual Progress Report a description of a lesson I did using graphic organisers and came to ask about it. They were curious about it. When I gave them details on how it works, their reaction was: It sounds great, but does it fit in with what you want to teach? That reaction did scare me. Yes, it fits in. I tried it. I want to try and be innovative if you would let me"* (Hera, Interview 3).

In terms of the parents, all the participants reported that parents influenced their teaching:

> *"When parents overcome the initial shock of diagnosing their child with reading difficulties, they constantly want to hear from the teacher that their child is doing well at school and that they are not falling behind their peers. They do not care if their child had better performance when I used graphic organisers. They don't have patience to wait for their child to familiarise with a learning strategy. They want results yesterday"* (Athena, Interview 2).

> *"Parents are constantly present at the school. Sometimes, they will dispute your abilities as a teacher, they will rubbish your teaching methods. Disapprove of you. Sometimes it so discouraging for the teacher that they prefer taking the easy road and teach with more traditional methods"* (Demetra, Interview 3).

Resources constraints

In terms of resources constraints, all five participants had their own teaching material located in their withdrawal classrooms. Given that the students referred to these classrooms already had difficulties in responding to the mainstream classroom textbooks, the special education teachers felt that they could not use the same textbook activities again in their one-to-one sessions with the students. Thus, all participants prepared their own differentiated activities. For instance, if they wanted to work on a text derived from the classroom textbook, they would sometimes

present a simplified version (Hestia) along with different written activities they prepared (see appendix 18 for an example). Other teachers (Hera and Demetra) used text that was suitable for the students, but not derived from the school textbooks (see appendices 26 and 27 for an example). All participants used printed worksheets they had prepared for the lessons. All students had a separate notebook for their time in the withdrawal classroom.

The issue of lack of resources was discussed extensively by all participants across all their interviews. They were frustrated that their job was so solidary. They were proud to be able to design their teaching material from scratch on their own, however, this did not negate their feelings of anxiousness of constantly needing to find alternative ways to teach their students. This might also partly explain their eagerness to participate in my research, *"the opportunity to design new material"* (Hera, Interview 3), as they felt that being a special education teacher myself we were in a position to develop a feeling of mutual need to share experiences and ideas for our teaching. This was also characterised by Johal (2011: 74) as *"trickle-down effect",* referring to the fact that using graphic organisers is a teaching tool that can easily be passed on and recommended to colleagues as a fruitful alternative.

> *"We haven't got anything ready from anyone. Not from the Ministry nor the school. Special education teachers create their lessons from 0. The following year we are at a better position as we can use material from the previous year. We need to constantly add to it, if time allows. Therefore, experimenting gives additional tools we can use"* (Artemis, Interview 3).

> *"It's all in the sharing between colleagues. We don't have anything ready. Learning material emerges from discussions with colleagues as to what is effective. That's why I liked your project. The use of graphic organisers came through my experimentation after a discussion with a colleague, you. It might be tricky to use at the beginning but it's worth it in the long-term as a resource"* (Demetra, Interview 3).

Established convenience

The final category that emerged from my analysis of the data that I collated relates

to the issue of "established convenience". Teachers sometimes found it difficult to deviate from the familiar, traditional and often safer options in terms of teaching methods and tools. This was commented on by all five participants repeatedly as a factor that can affect the use of alternative tools, one of these being the use of graphic organisers. For this reason, I present a brief quote from all five teachers.

> *"The unknown is scary"* (Demetra, Interview 2).

> *"It is very difficult to convince a teacher to move away from their established practices and experiment with something new. To put them on an unknown track"* (Artemis, Interview 1).

> *"I was confronted with hesitation when I said I used theatrical play in my lessons. Similar reaction with the graphic organisers. The traditional is always the safer option"* (Hera, Interview 2).

> *"Being a special education teacher is a wonderful job. […] I admit it. It's easier to just use what I know and I am familiar with rather than something new that I have to experiment with. It might work but it's also new and moves the teacher away from the convenient option"* (Athena, Interview 3).

> *"I believe it's uneasy and unsettling to enter an unknown path in your teaching"* (Hestia, Interview 3).

When my participants discussed the issue of convenience in teaching, they also counter-balanced the argument by commenting on how beneficial their participation in my study was in acting specifically as "*a wake-up call"* (Demetra, Interview 1) in trying something new that was *"motivational"* (Hera, Interview 3). I felt that my participants wanted to defend themselves in a way and justify why they and the majority of their colleagues often go down the route of the traditional, not deviating from the safety of the established teaching methods and tools they have been using for years. I sensed they had a feeling of guilt for doing so, and this was the reason why they elaborated so much on how this constraint impeded their experimentation with alternative tools, despite them being fully aware that they might have been

missing opportunities that could be elicited through experimentation.

In summary, having explored the elements of the reality principle and the various constraints it imposes on teachers and their professional practices, not surprisingly, my data suggests that this is an issue that affects teachers on an ongoing basis. This aligns with existing literature in the field, such as research by Sammons et al. (2007). The practicalities of their everyday work and personal life affects how the teachers experiment with alternative teaching methods and tools and how they develop their professional practices. The reality principle is, therefore, an issue that should be accounted for when conducting research with in-service teachers, as it can be the reason for missed opportunities to experiment in classrooms.

Overall the teachers reported that given all the constraints they had to deal with in terms of their work, the fact that my study did not entail a scheduled intervention that they had to implement in their classrooms but gave them the freedom to experiment with graphic organisers as they wished, was a welcome change and positively influenced their willingness to experiment. However, I also note Feldman's (2007) point that freedom is not to be confused with autonomy. He draws on Greene's work to support this argument. Greene (1888) argues that freedom is "*the capacity to surpass the given and look at things as if they could be otherwise"* (Greene, 1988: 3). Being free is having the capacity to freely consider alternatives promoting change and therefore the individual is free to choose between alternatives but they remain responsible and liable for their actions within a given situation (Greene, 1988).

> *"I will be honest with you. If you came to me with questionnaires and worksheets and asked me to use them I wouldn't have participated. I don't need more paperwork. I have enough time constraints as it is. I loved that I could use them [graphic organisers] based on my student and as an addition to the other methods I use"* (Hera, Interview 3).

> *"Freedom. You discussed with me an alternative. Not given me a ready-made recipe. I made my own decisions on how to implement it. That is something we lack in our profession"* (Demetra, Interview 3).

In short, in response to Research Question Three, my findings suggest that the issue of change and experimentation is influenced by a variety of complex factors. Examining the personal dimension, I have concluded that teachers' pre-established beliefs and values as well as their personal experiences and situated reality impact their decisions to engage with experimentation. In addition, there are practical constraints, holding the greatest weight in influencing teachers' teaching decisions, which might lead to missed opportunities in experimenting with alternative teaching methods, tools and resources. However, those teachers who do experiment, develop a higher sense of self-reflection and are able to develop their professional practices on an ongoing basis, effecting change, whilst engaging in continuous professional development.

7.5 Conclusion and Towards my final chapter

Teaching in withdrawal classrooms is a solidary practice and each teacher's work is based on the reality of their classrooms and their professional and personal values. Engaging in a comprehensive exploration of the teachers' experimentation journey whilst respecting and preserving my participants' individuality, identity and situated reality, I attempted to interrogate my three research questions. Overall, my findings suggest that participating in my study was a positive experience for the five teachers, focusing on their personal and professional development and informing their teaching practices.

My participants deemed their deployment of graphic organisers in withdrawal classrooms to be successful. Their experimentation with graphic organisers evolved with participants showing a willingness and eagerness to experiment with alternative types of graphic organisers as they realised the potential of using these to meet a variety of learning objectives. One notable impact of using graphic organisers for both the teachers and students was their growth in confidence and motivation. I mapped the factors and challenges faced by the teachers in their daily teaching practices and how these affected their experimentation with innovative tools. This revealed a variety of experiences and concerns. My findings suggested that the development of innovative practices by the participants and implementation

of change are affected by two major influences: their pre-dispositional attitudes and beliefs engrained in their teaching and how these are realised (or not) within their situated classroom reality and the impact of some practical constraints (such as time constraints, resources limits, pressure from stakeholders and difficulty to deviate from established methods). These constraints generate anxiety and struggles for the teachers.

The chapter that follows attempts to amalgamate the core findings of my research as they fall under the three research questions, engaging in a critical reflection of these against my personal observations, in order to draw conclusions and marry together the three questions pertaining my study. The contributions to new knowledge, including methodological procedures emerging from my study, the limitations, implications for practice in Cypriot schools and areas for further research will also be presented.

Chapter 8: Conclusions

8.1 Introduction

Being a special education teacher myself, I have always had a soft spot for other special education teachers working with students with reading difficulties and I have always admired their efforts in assessing various teaching approaches in order to find the most suitable one for their students. As I experimented with the use of graphic organisers with my own students in the past and researched their use with Deaf students, I became fascinated with them and wanted to reach out to other special education teachers to further explore their applicability. In doing my research in primary schools in Cyprus, I have collected a vast amount of data and have immersed myself in the personal experiences and accounts of my participants. In this final chapter I discuss the major findings and conclusions that emerge from my research, taking an analytical stance towards these findings.

This chapter begins with revisiting my research objectives and intentions. This is followed by a discussion of the core findings responding to my three research questions and drawing conclusions in an effort to marry my research questions together and clarify their inter-relationship. My analysis of the research questions highlight the core themes deriving from the data and I acknowledge that there are limits to my work. The chapter then considers the wider contribution of my study, its limitations and its policy implications. Last, a section on the areas for further research follows before I close the chapter with some final thoughts and concluding remarks.

8.2 Revisiting Research Objectives and Intentions

In my study, I aimed at understanding what factors influence teachers' decisions to use alternative teaching methods and tools when teaching students with reading difficulties, based on their situated reality within their withdrawal classrooms. This setting is distinctive. Withdrawal is sometimes considered as contentious, nevertheless it is an established and widely used practice in Cyprus.

The rationale underlying my research is that the teacher acts as a mediator between the students and their learning. Teachers face ongoing complexities attributable to

their distinctive classroom situation. They seek to enrich their teaching inventory and assess the applicability of alternative teaching methods and tools within their classrooms based on their situated reality, student characteristics and the specific objectives set for each lesson, effectively engaging in ongoing personal and professional development.

I selected the use of graphic organisers as an alternative teaching tool and chose to work closely with other special education teachers working in withdrawal classrooms. My methodology took the form of collaborative action research (Elliott, 2006) giving the teachers the opportunity to co-research their teaching practices, discuss their life stories and personal experiences of experimenting with alternative teaching tools. This methodological approach allowed for mutual rewards in participating; for myself holding a dual identity as a researcher and special education teacher and for the special education teachers who participated as collaborators in my research. Overall, my study explored the practical educative potential of using graphic organisers within withdrawal classrooms but also examined the potential for personal and professional development for the participating teachers and myself in an effort to inform our teaching practices.

My study has been guided by the below three core research questions. In the section that follows, I will discuss the conclusions I have drawn against these questions, in an effort to amalgamate my core findings and illustrate the inter-relationship that binds my research questions.

- How are graphic organisers deployed by special education teachers within withdrawal classrooms?

- What is the impact of using graphic organisers on student learning and teacher development?

- What influences special education teachers to change and develop their professional practices through innovative approaches?

8.3 Responding to the Research Questions

In this section, I focus on the core findings of my research, responding to each of the three research questions that guided my research and drawing conclusions, whilst I explore whether my findings concur or diverge from existing literature in the field.

8.3.1 Research Question One: How are graphic organisers deployed by the special education teachers within withdrawal classrooms?

The findings described in the first section of chapter 7 indicate that the deployment of graphic organisers by my participants was varied and was dependent on their students' characteristics (this included their learning style/preference, learning profile and learning needs), but more importantly on teachers' beliefs. Overall, the experience of using graphic organisers in withdrawal classrooms was deemed successful by the five teachers who experimented with their use.

Appendices 15-29 include all the graphic organisers used by my participants. The variety of types and formats is evident. This is an indicator of the flexibility of graphic organisers. My participants used both complete and semi-complete, teacher-constructed and student-constructed graphic organisers, and experimented with their use as substitute for text and as a supplement to text, both before and after reading a text.

On reflection, I believe that my findings have changed how I view text and its functionality in learning. My study has contributed to the understanding and realisation that printed text is no longer considered the only way to access and process information. Despite the small sample of participants and the small number of lessons (fifteen) I observed, my participants have shown me that there is an alternative way that students can process information, an alternative way of knowledge representation, based on visual tools. Thus, the argument for the importance of visual pedagogy (Goldfarb, 2002) in education is reinforced. Building upon the learning theory that I have discussed in chapter 3, acknowledging the social embeddedness of learning, I concur with Anderson-Inman (2009a) who argues that we are experiencing a "*rapid digitization of information"* (Anderson-

Inman, 2009: 123). The use of multimedia, highlighting the interplay between a variety of resources such as text, audio, video, images and visual or graphic displays (including graphic organisers) has become far more widespread (Guo & Feng, 2015). Shelly et al. (2008) argue for the integration of technology and multimedia in classrooms to help meet curriculum targets and have effective learning outcomes. This is due to the flexibility that technology offers in using different multimedia and teaching material for each student based on their unique learning style and individual differences. Technology-based visual environments as assistive technologies in schools have the potential to offer positive and unique experiences for the students as well as their teachers (Newbutt, 2013). Despite the small scale of my research, my findings reinforce the argument that contemporary classrooms have room for multimodal and innovative resources to be used in teaching, allowing for further understanding of visual technologies and modes of presenting information, which are not always easily recognised or understood (Godlfarb, 2002).

My findings align with the claim by Loizou (2016) that learning materials, methods and tools should be flexible and adjustable based on students' capacities and skills. Rather than focusing on what a student cannot do with a traditional form of presenting information, such as text, we could use alternative tools to ensure that the student has access to information, develops knowledge and learns in their own individual and unique way, reducing the exclusive and sole use of reading and writing during lessons. Is this a radical perspective for considering education? It may be. Concurring with Artemis, I argue that such a perspective, may even be *"a utopia"* (Artemis, Interview 1). However, it is a sign of hope and a possibility that lessons could be overhauled minimising the use of traditional reading and writing tasks. It is left for future research to validate or dismiss this possibility.

The experimentation of the teachers evolved, as did their thinking processes and the issues they discussed during the interviews or noted in their diaries. The way my participants were able to experiment with an innovative teaching tool despite the challenging environment of the withdrawal classroom as well as its lack of adequate learning materials, indicates the vitality of their role as well as their students' role during the learning process.

Teachers were comfortable to experiment with and adopt an innovative teaching tool when they saw that it had positive attributes. First, that graphic organisers are characterised by flexibility and adjustability, and can be adapted and moulded based on the students' individual characteristics. As discussed in chapters 4 and 7, considering the learning profile and characteristics of each student was of paramount importance for all my participants. Experimentation with and assessment of alternative teaching tools were inter-related with responding to the students' reactions, feedback and their individual learning characteristics, effectively showing a student-oriented dimension in their teaching. This finding matches existing literature suggesting that the adaptations and adjustments made by teachers on the *"continua of teaching approaches"* (Norwich & Lewis, 2007: 131) are generally based on the individual needs and characteristics of their students (Loizou, 2016; Tomlinson, 2012).

Second, graphic organisers can portray and reflect teachers' personal beliefs engrained in their teaching as to how learning occurs and what they consider their role to be during the learning event. All five participants regarded themselves as mediators in learning between the student and the learning material with the aim of equipping the student with cognitive and metacognitive techniques in order to promote independent learning, rather than instilling information and knowledge in them. The dynamic of how pre-dispositional beliefs and personal identity of each teacher influences their teaching, was one of the reasons that I decided to describe and recount each lesson and interview with all participants separately (chapter 6) before proceeding with the analysis and findings.

Overall, the successful deployment of graphic organisers by the special education teachers who showed a willingness and eagerness to experiment with their use, is partly a result of graphic organisers' plasticity, appearance and overall role during a lesson as they have the potential to match both teachers' and students' requirements and aims.

8.3.2 Research Question Two: What is the impact of using graphic organisers on student learning and teacher development?

Within the existing literature (discussed in chapter 3) the effectiveness of graphic organisers is seen in relation to the learning effects and outcomes that their use has on the performance and achievement of students (for example, Stull & Mayer, 2007; Dexter & Hughes, 2011). When I initiated my research, I expected that my participants would also focus on these types of effects. Nevertheless, as my study progressed, the impact of using graphic organisers was mostly discussed in relation to intrinsic effects. By the term intrinsic, as I elaborated in the previous chapter, I refer to the emotional and personal impact that the use of graphic organisers had on both the students and the teachers. This involves elements such as motivation, confidence, autonomy, self-reflection as well as professional and personal development for the participating teachers.

The learning effects on students (chapter 7), evolved around reading comprehension and writing skills as well as the development of metacognitive skills. My participants aimed to design lessons that included a visual illustration of the main ideas of a story and the relationships between them, and graphic organisers were seen as a beneficial method to materialise this aim. My teachers commented that by using graphic organisers, they could reduce their students' feelings of being *"lost in text"*, which was a comment repeated by all participants across their interviews. Considering that my participants identified reading comprehension as one of their main learning objectives, I did not expect that practice of writing skills would be explored in relation to graphic organisers. Nevertheless, two of my participants (Athena and Hestia) focused on the development of students' writing skills as being equally important objectives during lessons that incorporated the use of graphic organisers, reflecting contemporary learning theory that regards reading and writing as intertwined activities (Hodges et al., 2016).

My participants constantly discussed the idea that educating students about "how to learn" was important in the long-term superseding short-term learning objectives set for each lesson. They shared a belief that student learning should be independent with the teacher acting as a facilitator using teaching techniques to encourage their students to become autonomous and active. In the literature (discussed in chapters

3 and 7), this is known as developing metacognitive self-regulating skills for selecting the appropriate learning strategy, assessing the learning task and being aware of how knowledge is organised, where the student effectively becomes an active participant in their own learning (Kirschner et al., 2006). The use of graphic organisers as scaffolding aids was reported by my participants to be beneficial in the development of metacognitive skills, because in educating students how and why these are used, students were able to learn what type of information is expected to be retained from a text and added to the graphic organiser. As Athena commented: "*A diagram, though, can be a map, with or without words. A map that can guide the student on what to keep from a text and how to learn"* (Athena, Interview 1).

When elaborating on the intrinsic impact of using graphic organisers with their students, my participants focused on emotional reactions such as excitement, boost in confidence and self-esteem. They reported that observing such positive reactions fuelled their own enthusiasm for continuing to use graphic organisers and experimenting more with their applicability. This was a significant finding and the teachers were encouraged to continue experimenting by positive student feedback. In an effort to explain the positive emotional effect the use of graphic organisers had on their students, my participants elaborated on the aesthetic value, visual attractiveness and the sense of novelty instilled by graphic organisers. It has been reported in the literature that such characteristics and contextual conditions facilitate motivation (Casteleyn et al., 2013). My findings showed that such contextual characteristics awakened and retained student interest and motivation in the observed lessons. However, I also acknowledge the danger of graphic organisers losing their sense of novelty if used too frequently which could result in students losing their interest in them.

The usefulness of graphic organisers for teachers' work was highlighted in my findings on the assessment and feedback they received in their lessons. As discussed in chapter 7, the benefit of graphic organisers was that they helped teachers remain focused and kept their thoughts organised as to what learning objectives they wanted to achieve and what main elements of the lesson they wanted their students to retain. Furthermore, my participants often referred to the

importance of self-reflection in respect of their lesson designs and their effectiveness. They said that graphic organisers offered them an opportunity to undertake instant and effortless assessment of student performance, which was a necessary step in considering the effectiveness of their teaching methods and tools as well as what alterations should be made for upcoming lessons. My participants were searching for innovative teaching practices that could counter-balance some of the difficulties of their contextual realities that imposed constraints on how they conducted their lessons. The seemingly effortless way that graphic organisers could be adjusted to fit in their lessons and teaching regime, was appealing for the teachers and fuelled their excitement and eagerness to experiment further with their use.

Part of my data related to the intrinsic effects of using graphic organisers on the teachers themselves. These were found to relate to their professional and personal development, focusing on self-reflection, motivation, confidence in their abilities and their professional identity as teachers. All my participants without fail, elaborated on how important it was to engage in self-reflection and ongoing assessment of their teaching practices as a response to students' reactions and feedback. How they identified themselves as special education teachers with a duty of care towards their students as well as how their need and eagerness to experiment with their teaching practices affected their motivation and confidence to carry on experimenting. When this perspective was enriched through positive feedback from the students, feelings of reassurance, justification and worth assured my participants that they were doing their job well.

8.3.3 Research Question Three: What influences special education teachers to change and develop their professional practices through innovative approaches?

As my participants' experimentation evolved, they were able to engage in deeper self-reflection and discuss their pre-dispositional attitudes, their beliefs and their role, which as my findings indicate, seemed to influence change and development in their professional practices. Pre-dispositional attitudes and beliefs were engrained in their teaching and their situated classroom reality. As Hamachek says: *"Consciously, we teach what we know; unconsciously, we teach who we are"*

(Hamachek, 1999: 209). However, my findings revealed that the practical constraints of the teaching profession (time constraints, resources constraints, pressure from stakeholders and the feeling of established convenience), encompassed in "the reality principle" as I have named it, also impact teachers' professional practices, influencing their decisions to experiment with any kind of innovative approaches and teaching tools.

As documented in my findings, feelings of anguish were noted by all my participants in regards to their professional responsibility and how to offer the best to their students. My participants, albeit a small sample, revealed that being a special education teacher working within withdrawal classrooms can be a lonely road. Even though they interact with other teachers, their classroom reality is different from the mainstream classrooms in many ways, necessitating that their teaching is embedded within this specific situated reality. Given that they teach one student at a time, the importance of students' individual differences and aptitudes and how these have an effect on the teaching practices and teaching tools that the teachers choose to work with, may indicate the potential for a greater impact than it could have in mainstream classrooms.

The participants in my study persisted with experimenting, exploring new practices and seemed to be engaged in an ongoing battle to find new methods and tools, developing their professional practices and effectively adding to their teaching repertoire. They had an ongoing concern to do the best for their students who they taught one-to-one, developing a more personal relationship. However, they acknowledged that their battle faced many obstacles and struggles, whether these related to insufficient time to experiment, pressure from the schools, the parents as well as the curriculum targets that needed to be met.

Existing literature (Hargreaves, 1996; Korthagen, 2004) indicates that self-reflection and the ability to engage in an ongoing dialogue with one's self in respect of professional practices and their development within the classroom is important for teachers. Looking back to the individual graphic organisers that I created for each of the interviews with each of the participants illustrating the issues that the teachers discussed in each interview (chapter 6), it is evident that teachers were

able to engage successfully in such self-reflection and self-evaluation. The teachers' evolution of thought, their journey through various stages of self-reflection is better portrayed when comparing the level of detail in each graphic organiser. Without fail, the graphic organisers for each participant got more complicated and elaborated as my research progressed from cycle to cycle. This indicates and visually illustrates that the teachers grew as professionals, cultivating their ability to self-reflect and self-evaluate, which led to them developing, adjusting and finessing their professional practices on an ongoing basis.

Moreover, the teachers' deeply rooted belief that their job is to mediate between their students and knowledge also fed their eagerness and willingness to participate in my research, as they were constantly searching for innovative and flexible teaching tools. They described participating in my study as *"a wake-up call"* (Demetra, Interview 1) that motivated them to keep experimenting and offered opportunities for them to research new teaching tools to add to their repertoires. The sense of achievement by feeling they have done their job well, may fuel their future experimentation with other innovative teaching practices, effectively allowing for longer-term maintenance of positive research effects.

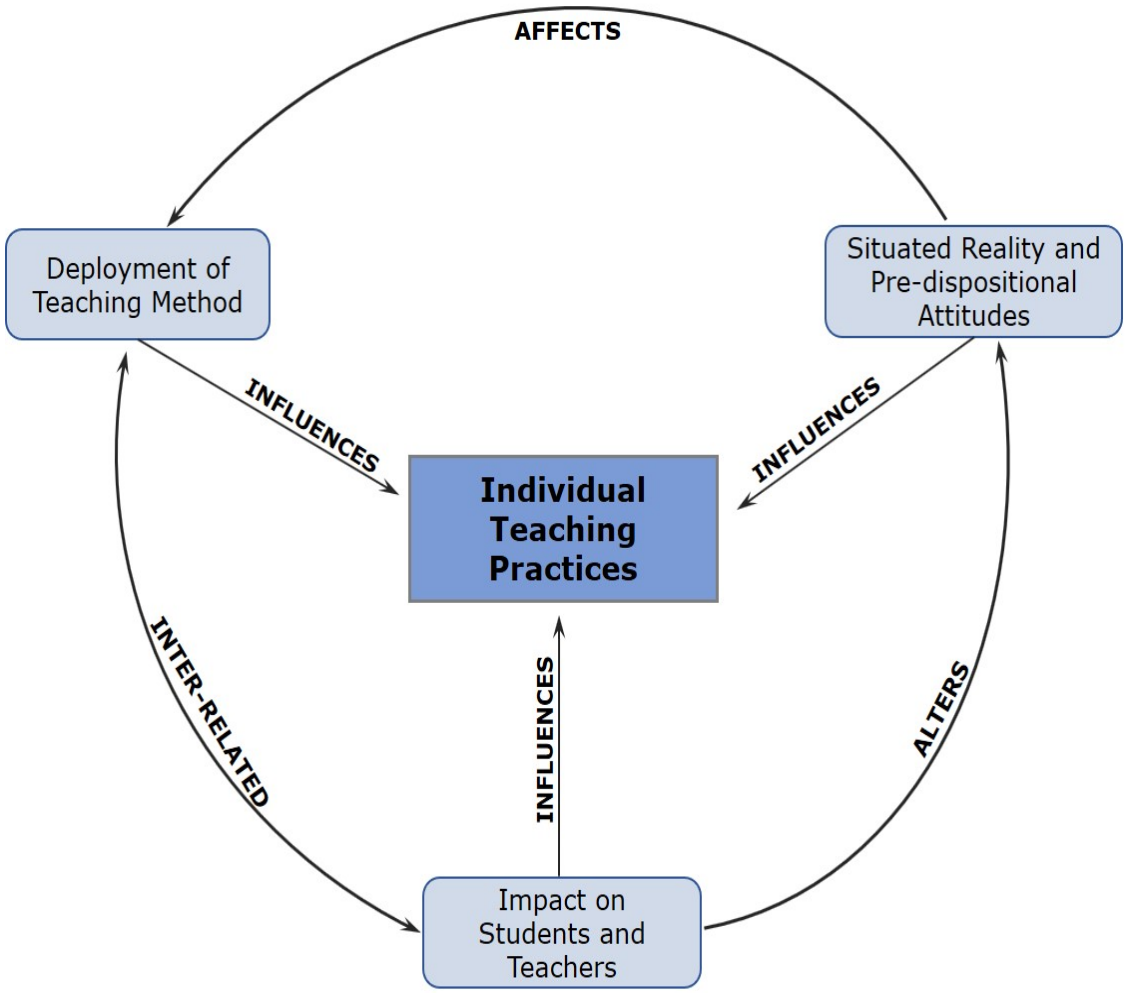
Last but not least, my participants expressed that sharing knowledge and experiences with colleagues and gaining from research programmes was essential for them in their careers. This highlights an important characteristic of my research. The opportunity for ongoing interaction with myself, holding a dual identity of special education teacher as well as researcher, seemed to have sustained their interest in experimenting with alternative innovative teaching tools. Their diligence and commitment to my study emphasises the necessity for interaction, discussion and reflection on teaching practices with other experts in the field (both teachers and researchers). What Kennedy (2014) terms as transformative model of continuous professional development, suggests that collective practice and interaction enhances individual experience and personal knowledge, whilst promoting educational change.

I, therefore, believe that the positive attitudes, motivation, eagerness and commitment showed by my participants is an indicator of how in-service teachers,

especially teachers working in solitary classroom realities, believe that is beneficial to participate in collaborative action research projects that they directly benefit from, whilst having interaction and feedback from researchers. These direct benefits relate to the development of self-reflection skills and a boost of confidence and motivation to not give up on their students, enhancing their enthusiasm to experiment with innovative practices, and thus promoting overall professional development. This finding is in line with the conclusions drawn by Ioannidou-Koutselini and Patsalidou (2015) who adopted an action research methodology to explore the development of self-regulation skills and the promotion of change of teaching practices by in-service teachers in Cyprus. They concluded that participation in such projects is highly rewarding with teachers reporting a shift of their perceptions from *"passive content transmitters to active researchers and collaborators"* (Ioannidou-Koutselini & Patsalidou, 2015: 136). This implication is also in line with international literature that I have discussed in chapter 5, highlighting the potential of action research projects in classrooms.

Finally, bringing all my core findings together and in an effort to establish how the dominant themes pertaining to each research question are inter-related, I have created Graphic Organiser 8.1, marrying my research questions together. What the resulting graphic organiser illustrates is that an educational event, as I have tried to explore with the three research questions, is a cycle with the main components (teacher, student, environment and teaching tools) being highly inter-related. The development and application of teaching tools depends on the teachers themselves and the influences they experience, whether these are personal factors (pre-dispositional beliefs engrained in their professional identity) or external situational factors (reality principle). How a teaching tool is deployed and applied depends on the impact and effect it has on students and teachers themselves (with greater importance placed by my participants on intrinsic emotional factors) and vice versa. Lastly, observing the positive impact of deploying a new teaching tool, teachers cultivate and retain their willingness to experiment, feeling motivated, committed and encouraged, adding and sometimes even altering to a certain degree, their attitudes based on their personal experiences within the educational event.

Graphic Organiser 8.1: Amalgamating the responses to the three research questions



8.4 Wider Thesis Contribution to New Knowledge in the Field

What my study offers is an in-depth insight into the working lives of five special education teachers situated within withdrawal classrooms in Cyprus and how their professional identity and practice is shaped within this specific situated reality. It offers an alternative way of exploring this setting whilst looking at the educative potential of using graphic organisers to teach students with reading difficulties within withdrawal classrooms. However, my research does not hold any definitive answers for effective individualised teaching nor it can be argued with certainty that the use of graphic organisers is the panacea for successful learning outcomes for students with learning difficulties and specifically reading difficulties.

In this following section, therefore, I discuss the contributions being made by my study. This contribution has three components: promoting innovation in using collaborative action research in schools and exploring how researchers can work alongside in-service teachers; providing further understanding of the educative potential of graphic organisers for teaching students with reading difficulties; and promoting innovation in thesis presentation with the use of graphic organisers for illustrating parts of my arguments in my thesis.

8.4.1 Contribution to new knowledge in methodology

Discussing the first component of my contribution, I focus on innovations in terms of how my research was conducted. I believe that the methodological design of my research where teachers were active collaborators with freedom and control over their lessons and their experimentation with the use of graphic organisers, reinforces the importance of such collaborative action research projects in classrooms. I appreciate that some might argue that this is not new knowledge, as existing literature (Kindon et al., 2007; Reason & Bradbury, 2008) already discusses the potential of collaborative action research in education. However, considering the Cypriot context of my research, such methodological approaches are still developing. During the in-depth interviews with the teachers, my participants confided in me that traditional teaching methods and tools are engrained in education and deviating from the established and widely accepted teaching practices is not easily accepted or always feasible. Despite the educational reforms recently undertaken that promote self-regulated teaching and self-reflection (discussed in chapter 2), teachers believe that in practice, this is not the case. Teachers do not have the chance to participate in research, and this is where my research contributes. It has shown that working with in-service teachers using collaborative action research can yield encouraging and positive outcomes for the participating teachers themselves, allowing for slow but steady innovation to penetrate Cypriot schools, promoting experimentation with alternative teaching tools.

In parallel, my participants reported feeling more in control of their work, focusing on designing lessons themselves to target areas they personally had identified as

problematic for their students. I wanted to avoid the predicament whereby "*while we [researchers] collect evidence, teachers go on teaching"* (Hattie, 2009: 5). I feel that if I had approached these teachers with an intervention programme that was designed by myself and had asked them to implement it in their classrooms, the results would not have been the same. With my study, I wanted to avoid expecting teachers to implement change in their practice as directed by research undertaken in different contexts, as I believe this often fails to promote change in pedagogy. From the onset, my approach towards my participants was to encourage freedom in lesson design, with no obligation on them to adjust their lessons according to an imposed intervention programme, but rather simply to teach using graphic organisers as they thought fit for their specific situated classroom reality and their students.

Furthermore, enabling the teachers to take over the design and implementation of the intervention programme in its entirety, has resulted in them becoming more reflective (Zeichner & Liston, 1996). They employed reflection-on-action and reflection-in-action to extend their personal knowledge about their own teaching practices, their students and their situated reality (Schon, 1991; Zeichner & Liston, 1996). By engaging in self-directed experimentation, they reframed the problem (Schon, 1991), critically analysed and thought on the spot about their beliefs, assumptions and teaching experiences in order to improve their future practices (Zeichner & Liston, 1996). In this way, their thinking was disrupted and altered. As I have discussed in chapters 4 and 5, the actions and results of my participants' experimentation, reinforces the argument that by successfully engaging in reflective practice, sustainable educational change and professional development are effected, whereby in-service teachers can become more reflective achieving self-knowledge and fulfilment (Schon, 1991). My participants became disruptive thinkers, altered the way they thought and in some cases completely changed direction in their teaching by challenging their status quo, their world view and pre-established beliefs and attitudes. This change was a result of them allowing and encouraging themselves to experiment with something new and alternative, which also led to their professional development and gain of an asset for their teaching tools repository. It is in this context that my study offers an original and substantial

contribution to the field of teachers researching their work and experimenting with alternative teaching approaches and tools.

My study was deemed successful without any drop-outs by my participants. One of the reasons for their participation was that the project offered opportunities for self-reflection, supported all sorts of experimentation and consideration of new possibilities in teaching, to both sets of collaborators (participating teachers and myself). Working with an external member who was not directly related to their schools, seems to have led to a morale boost for the teachers who reported feeling being better teachers because they were able to analyse and discuss their classroom practices with a *"critical friend"* (Angelides et al., 2008: 559), who is also open to comments, criticism and recommendations, engaging in a mutually benefitting dialogue. I acknowledge that the notion of a critical friend can be contested, however, I believe that in the case of special education teachers it is beneficial to collaborate with someone who has an inherent understanding of how withdrawal classrooms function and how this situated context is unique for each teacher. Carrying a dual identity as a special education teacher and researcher, I would argue that I fulfilled the role of a critical friend encouraging my participants to experiment, balancing to some extent the unavoidable power dynamics (discussed in chapter 5).

This ongoing interaction between myself and my participants in their classrooms was essential for the success of my research, stimulating experimentation and change in pedagogy. It offered the opportunity to my participants to share their problems and concerns with me but also to reflect on their practices and how they experimented with an alternative teaching tool. I believe that their commitment to use graphic organisers, but also to provide data for my research without fail and indeed with an unparalleled enthusiasm, stems from the fact that they felt that the study was shared between us, that we had mutual benefits and mutual understanding of the context and situated reality of withdrawal classrooms. Having sustained our ongoing interaction and mutual participation in the study over time, instilled a feeling of security and trust in my participants and allowed for a creative environment within which they could experiment as they wished and thought best for their own benefit and that of their students, with nothing dictating what was

right or wrong. The development of a supportive and safe atmosphere that promotes the sharing of experiences and learning seems to be crucial for continuous professional development and job satisfaction. This concurs with existing literature, both in terms of the Cypriot context (Angelides et al., 2008) as well as internationally (Bezzina, 2006; Gilbert, 2005).

I suggest that my presence in the five classrooms offered my participants the reassurance that their efforts were acknowledged and in fact, encouraged. I believe that this ongoing contact with myself, along with the feeling of ownership in their work and experimentation, had a substantial effect on how committed the teachers were to the study and how focused they were in constantly experimenting and effectively adopting an alternative teaching tool, enriching their inventory.

As discussed in chapter 5, prior to the implementation of my research, I established that my participants were all familiar with graphic organisers and their potential benefits for students with reading difficulties. However, they had never actually used them in their classrooms. They never felt compelled to, encouraged to. This indicates a gap between educational research and its practical implementation in classrooms. With encouragement and ongoing interaction with myself as an external agent attending their classrooms, they all actively, willingly and eagerly engaged in experimentation which was evidently successful. However, as detailed in the Limitations Section (below), I acknowledge that my participants may be an atypical sample and an extraordinary group, who were keen and devoted to promoting change through experimentation. Nevertheless, their willingness, eagerness and commitment to my study are all testament to how important it is with ongoing support by external researchers, to engage in-practice teachers in research, as they can be realistic judges of what could be effective in their classrooms and for their students. My research highlights the importance of encouraging teachers to study their own teaching based on their existing reality and classroom context, from their tacit knowledge and authentic experience, in order to enrich their teaching repertoire and understanding.

Therefore, one of the vital contributions to new knowledge in methodology that my research offers is the way I implemented my research and the way I initiated,

developed and maintained a mutually beneficial cycle of trust and closeness with my participants which established, in practice, one of the main arguments of collaborative research: achieving an ultimate status of co-researching between insiders (teachers) and outsiders (researcher) (Elliott, 2004). At the heart of co-researching, is people working together, documenting their learning and activities, which are thereafter shared in an effort to initiate the next cycle of research. I believe that my research proves the usefulness of developing a collaborative framework with ongoing interaction between researchers and participants when undertaking educational research. This argument promotes the idea of undertaking research *alongside* the participants and not *on* the participants (Kindon et al., 2007), instilling confidence in them to become researchers of their own practice, to become producers of their own knowledge.

8.4.2 Contribution to new knowledge in the educative potential of graphic organisers

My research is founded on the basis of my personal beliefs and personal background (chapter 1), whereby as a child of Deaf parents, I was raised believing that when a text or any other information-containing material does not make sense for the reader, then one course of action is to change it to match the reader's skills and aptitudes and make it more accessible by altering its appearance and its content. One of the ways that I believe this can be done is through the use of graphic organisers. Their use as an alternative way of communicating a message and learning has potential for all learners, including learners with learning difficulties, who seem to benefit from altering a text and representing its contents visually in a non-linear format. As I discussed in chapter 3, existing research in the field indicates the effectiveness of using graphic organisers as content enhancements and adaptive strategies facilitating better performance by students with reading difficulties (Ciullo & Reutebuch, 2013; Kim et al., 2004). In addition, as mentioned earlier in this chapter, a more radical interpretation of this argument is that graphic organisers may have the potential to be an alternative to reading and writing; where students could be taught to produce graphic organisers, as an innovative way to focus on what they can do and not on what they cannot do if they experience difficulties in interacting with text and producing written material. My research has moved a step closer to gaining a better understanding of this and adding to the

existing pool of literature. However, as will be discussed later, further longer term studies utilising assessment tools are needed.

My study argues that emerging technologies, changing learning environments and teaching tools (such as the use of graphic organisers) offer new opportunities for teaching allowing teachers to create learning environments that offer interactive learning opportunities, moving away from traditional technologies (such as books and blackboards) and bringing the real world and the personal experiences of the students into the classroom (Hattie, 2009; National Research Council, 2000). This is in line with the current perspectives in learning theory that I have discussed earlier in my thesis (chapter 3). However, I acknowledge Mayer's (2005) claim that this type of learning can be demanding as it requires learners to process and integrate information from a variety of sources in order to construct a single coherent mental representation and this may exceed the working memory capacity of the students. Thus, this multimedia approach should be counter-balanced against the capabilities and skills of the students.

My study provides arguments in favour of the innovative use of graphic organisers, allowed for by the plasticity, flexibility and adaptability of their design and placement in the classroom. In addition, graphic organisers can be produced simply by using pen and paper, making them accessible and appealing to teachers as the cost implications of their use is low and there is no need for special equipment or software to produce them. Looking at the creative ways that the participating teachers used graphic organisers (see chapter 6 and appendices 15-29) in their lessons and the impact they have on both the students and the teachers, observed by myself and reported by the teachers during their interviews and in their diaries, is evidence that the use of graphic organisers is applicable within classrooms and specifically withdrawal classrooms. Moreover, my findings indicate that teachers are willing to experiment with innovative teaching practices when the tools and material they use are not rigid and can be adapted based on students' characteristics and the situated reality of their classroom. This is a finding that extends the geographical boundaries of my research that was undertaken in Cyprus, in the sense that this argument is applicable to the wider educational context across borders

where teachers seek innovative teaching practices that can be incorporated in their classroom and adjusted to match their students' learning style and level.

Having examined the impact of using graphic organisers with students with reading difficulties, I suggest that the use of graphic organisers can help promote self-regulated learning and can be adopted as an acquired cognitive and metacognitive learning technique by students themselves. Thus, meanings and new ideas can be self-generated in the classroom with the teacher acting as mediator encouraging independent and active learning.

Having discussed the complexity of learning to deal with text fluently, retrieving and retaining its meaning in chapter 3, my research supports the usefulness of visualisation in cognition. Visually illustrating the main components of a text and demonstrating how and why these components were selected, was helpful for the students. The teachers reported in their interviews and diaries that students had better outcomes during lessons using graphic organisers as they were more confident and showed higher levels of self-esteem. Therefore, my research provides further arguments for the educative potential of using graphic organisers in working with students with reading difficulties and encouraging students' confidence to learn.

8.4.3 Contribution to new knowledge in thesis presentation

Building on my world view and perspective as to how important visual representation is, I wanted to include as many graphic organisers as I could within my thesis. Hence, I drafted the Venn diagram within chapter 1 to provide an overview of my thesis and subsequently used graphic organisers to present my overall research (chapter 5) and to analyse and visually present each of the fifteen interviews for each teacher (chapter 6). I also designed graphic organisers to present the three clusters of my findings against each of the research questions as well as some of the main themes (chapter 7), with the final graphic organiser showing the inter-relation of the issues pertaining to my research questions, included in this chapter. By utilising graphic organisers for the most prominent parts of my thesis, I wanted to demonstrate the adaptability and flexibility of graphic organisers as a learning tool as I have been arguing throughout my thesis, as well as promoting

their potential for different levels of education: primary education, special education as well as higher education in undertaking a PhD.

8.5 Limitations

A constant concern during my research was in relation to whether I should have designed and undertaken my research in a different way. Acknowledging that some limitations and questions may arise in respect of my study, I now set out and discuss the prominent grey areas and limitations I have identified.

8.5.1 Sample

The five special education teachers who agreed to participate in my research might be considered a non-representative sample that would invalidate any generalisations from my findings. As I have discussed at the very beginning of my thesis, in chapter 2, my work is a small-scale experiment into exploring the applicability of an alternative teaching tool within withdrawal classrooms in Cypriot primary schools. I appreciate that my sample is small and I was concerned with the impact that the findings might have in the general educational context. However, working with a small sample allowed for an in-depth exploration into the individual realities and experiences of each of these participants. The results and conclusions deriving from the data had a direct effect on their professional practices and professional development, which ultimately was the aim of my research.

My sample might also be considered an atypical sample, whereby the five participants were an extraordinary group of teachers who may have been very devoted and focused on changing their teaching practices, being inclined and eager to participate in my research. Thus, this group might not be a representative sample of the overall population of special education teachers in Cyprus, which currently stands at 730 teachers, including in-practice and awaiting teachers on the National Registry (Cyprus Education Department, 2018).

Another issue relating to my sample is the gender make-up of my teachers. Out of the eight potential participants I initially approached, the three males declined to participate citing their busy schedules that prevented them from committing to the

study. It would have been interesting to explore whether a male teacher's perspective would have been any different and whether more distinct differences amongst the participants would have been noted in the data had the sample been larger. Notwithstanding this limitation, my work has offered valuable insights into the experiences of special education teachers experimenting with their teaching and looked at the driving factors that encourages them to do so.

8.5.2 Data collection tools

For my research, I selected semi-structured interviews as the main source of data collection. I acknowledge, however, that interviews are a *"unique event"* (Nunkoosing, 2005: 704) whereby the interviewee expands and reflects on their views, perspective and opinion at that specific moment in time. Consideration is also given to the fact that it is human nature for a person to consciously or subconsciously present themselves favourably during an interview, presenting the best version of themselves and the events they are describing, concealing aspects they might feel are unfavourable for them. Thus, their narratives might have a performative function (Convery, 1999; Sikes, 2000). In responding to this concern, I decided to interview my participants three times in an effort to obtain a holistic picture of them as individuals and their professional and personal identities. In addition, I triangulated my interview data with the diary entries obtained from the participants and the classroom observations I undertook.

In addition, having the opportunity to engage in in-depth discussions during the semi-structured interviews with the teachers had mutual benefits for both parties promoting ongoing self-reflection and self-evaluation. For myself as researcher, this interaction made a significant contribution to how I engaged in reflection and interpretation of the data, having had the opportunity to really get to know my participants and having engaged in sincere and in-depth interviews with them. Therefore, despite the various challenges and limitations involved in conducting interviews, I feel that for the purposes of my study this technique was fit for purpose.

Reflecting on the findings of my research where all participants talked of how they valued sharing experiences and knowledge with other special education teachers, I

believe that focus group discussions amongst the five participants as an additional data collection tool would have provided an additional dynamic and perspective to the research. Moreover, it would have allowed for the mutual exchange of ideas as well as emotional and practical support to develop between the teachers which might have had a further impact on their motivation and confidence levels. This is in line with other research undertaken in Cyprus (Loizou, 2011), whereby the positive effects of professional collaboration and innovative practices and change within the Cypriot context was highlighted.

Moreover, another methodological consideration is that whilst my research encourages constructive discussions on the study and its design between the participating teachers and myself during the interviews, it has not allowed for a further discussion of the results, after the analysis of the data, with the teachers in a group or individually.

A further limitation that may be considered in relation to my data collection, is the lack of interviews with any students involved in my study. Despite teachers (myself included) interpreting students' reactions to the use of graphic organisers as well as assessing their effectiveness, direct conversations with the students may have conveyed a different idea or offered a deeper understanding as to why the use of graphic organisers was deemed successful. At the initial stages of my research, I had considered undertaking student interviews as well as perhaps designing an assessment tool to measure the effectiveness of graphic organisers. However, I wanted the focus to be on the teachers and their personal experiences, wishing to give them voice in order to try and understand how they deploy alternative teaching tools and what influences their decision in selecting and developing such tools as well as generating the co-researcher collaboration that I have described earlier.

Interviews with parents as well as the mainstream classroom teachers, whose classrooms the participating students attended, could have offered an additional perspective on the research questions. Parents may have been in a position to report on whether the effectiveness of graphic organisers (both intrinsic and practical) had been sustained and whether using graphic organisers made a difference to their children outside the school context. Likewise, mainstream classroom teachers

could have reported whether the use of graphic organisers by the students was retained or whether this was a practice confined within the withdrawal classroom. However, I believe that including interviews with other stakeholders would have made my study too wide and unsustainable, detracting from the focus on special education teachers that I wanted my research to have.

8.6 Policy Implications

There are issues that have been discussed in my thesis that raise implications for policy. First, there is the importance of the role of the teacher within withdrawal classrooms and how the "reality principle" as I have named it for the purposes of my thesis could have some detrimental effects on their practice. Second, the need for support and programmes of continuous professional development as well as participation in projects with a similar methodology to mine could offer the support and understanding that these teachers seek. Acknowledging the obstacles that a special education teacher faces within the withdrawal classroom offers the opportunity to design teacher education programmes that are specifically targeted to support these teachers and could bring the Ministry of Education and Culture closer to schools and more specifically closer to the withdrawal classrooms. The institutionalisation of an effective support system as well as effective training and professional development programmes are also highlighted within existing literature for their positive effects on teacher development (Bezzina, 2006). Mansour (2013) and Bezzina (2006) argue that professional development programmes should be designed to target teacher concerns, being built on an understanding of the conflicts arising from practical constraints and how these are associated with pre-dispositional beliefs, as well as promoting a positive school culture and mutual support and cooperation. Professional development is also linked with self-efficacy and the potential to encourage awareness and confidence in the teachers' own abilities (Petridou et al., 2017). I, therefore, suggest that there is always a need to develop training programmes and seminars discussing teaching methods and tools for teachers, aiming at their continuous professional development. I believe that my research demonstrates that it is not enough to just inform teachers of the potential of alternative methods and expect them to apply these in their classrooms. Teachers effect change and innovation in their teaching

when they have the opportunity to experiment with something new within their own contextual reality.

The issues that my participants highlighted in their interviews indicate how solitary their profession can be, working in withdrawal classrooms with minimal interaction with other teachers within mainstream primary schools. I was moved by this realisation and touched by the interest and excitement my participants showed for my research, the gratitude they showed me for giving them the opportunity to experiment with an alternative teaching tool whilst they had total control of the intervention. Lack of ownership was discussed by Fraser et al. (2007) as one of the main contributing factors of teacher apathy towards implementing research and innovation in the classroom. I believe that the fact that the participants in my research had control and ownership of their lessons was one of the main reasons for their active and continued participation despite their busy and heavily committed schedules. This seems to be the kind of confidence and motivation boost the special education teachers relished, hence characterising my study as *"a gentle push encouraging experimentation"* (Artemis, Interview 3). Highlighting their willingness to experiment, my study demonstrates that when teachers are given time, space and ongoing support, they become pioneers with confidence and reinforced empowerment to experiment with their teaching and effect change in their classrooms.

I also concur with Nicolaidou (2010) who argues that in Cyprus teachers have limited autonomy in who they undertake their lessons with and what teaching materials they use, acknowledging the fact that the Cypriot education system is highly centralised. Therefore, I believe that materialising the objective of the Ministry of Education and Culture to overhaul professional development and encourage teachers to be professional pedagogues (Ministry of Education and Culture, 2008), should include the promotion of interactive action research programmes with reflective and mutual dialogue between teachers and researchers. My research indicates that transformation is more sustainable when teachers have an active role in researching their own practices, being co-researchers in educational research projects and professional development training programmes as well as participating in decision-making processes. Thus, within the notion of

professionality and reflection upon action, the participation of teachers in research is central for the practical evaluation of practices as well as for self-reflection.

8.7 Areas for Further Research

Acknowledging the potential of using graphic organisers within withdrawal classrooms in teaching students with reading difficulties, I argue that further research into the effectiveness of graphic organisers on the performance of students with reading difficulties may be prudent. Perhaps specific assessment tools would be helpful in assessing this. Nikolaraizi and Theofanous (2012) used oral retelling analysis to assess the effectiveness of using graphic organisers for reading comprehension with Deaf students, and perhaps a similar approach may be helpful in assessing the reading comprehension levels of students with reading difficulties.

Considering the positive remarks by my participants in respect of using graphic organisers in their work to complete a variety of learning targets, returning to the same teachers for a further interview after some time has passed could be useful. This could be undertaken in order to assess any longer-term effectiveness of graphic organisers as well as discussing whether their use was retained following completion of my study. This may be helpful in further understanding the potential and limitations of using graphic organisers as well as other issues related to deploying innovative teaching tools within withdrawal classrooms.

8.8 Concluding Remarks

I close my thesis reflecting on what I have learned from this experience. My aim from the onset was to give my participants voice that would be sustained throughout the study, to give them the opportunity to experiment with an alternative teaching tool based on their situated context, on the unique characteristics of their withdrawal classrooms and on the unique individual characteristics of their students. I wanted to be the facilitator in their experimentation, their supporter and for them to feel as collaborators in my research having ongoing interaction with myself. The reason for this was simple; to sustain their enthusiasm and passion for their work and how they experiment with their teaching practices. I wanted the experience to be real for them not merely for the purposes of my study, and to have

sustainable effects for my participants that would not stop at its conclusion. I feel that my research was successful in this respect.

I was honoured to be accepted and welcomed in the classrooms of all my participants. The eagerness and willingness they showed in participating in my study, in diligently keeping a diary when they were under so much pressure from their own personal and professional lives, has moved me. Research and especially action research projects, have a role to play in classrooms. Each classroom, especially the withdrawal classroom, is a distinctive situated reality and my participants hold an individual identity that is unique. Special education teachers, such as my participants and myself, need to be equipped with research skills and be encouraged to participate in action research projects to allow them to grow as teachers, as professionals, as humans.

The remarkable work of my participants signifies that being a special education teacher is not just a vocation, but is based on an inherent inclination, sensitivity and energy to always fine-tune their teaching and teaching inventory based on their students' unique and individual characteristics, skills and needs. As education consultant, Ignacio Estrada, says in his speeches: "*If children don't learn the way we teach, maybe we should teach the way they learn"*.

The quote I chose to close my thesis, from one of the five truly admirable teachers that participated in my research, says it all:

> *"I have an insatiable thirst to constantly find new ways to keep the students motivated and interested in learning. I think it is a shame to let students, who face specific difficulties in their learning, go to waste. These students need us the most. They need a teacher to realise their potential and teach them based on their individual needs and characteristics. This is where the special education teacher comes in. A teacher, who needs to be highly sensitive and alert at the same time for the needs of these students and be a person who never gives up on them and keeps searching for something new for their lessons. A person, who will always seek to develop professionally"* (Hera, Interview 2).

My participants were inspiring to me. They showed an unwavering perseverance in not giving up, an unquenchable thirst and diligence to constantly work on their teaching practices, experiment with new tools, always having at heart their students' unique individuality. By doing so, they enormously benefited both their students and themselves. My only wish is that my thesis does justice to them and accurately portrays as much as possible their unique and fascinating personal reality and experiences.

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Appendices

Appendix 1 – Ethical approval letter by King's College London

Research Ethics Office

5.11 Franklin-Wilkins Building
(Waterloo Bridge Wing)
Stamford Street
London SE1 9NH
Tel 020 7848 4077/4070/4020
Email rec@kcl.ac.uk
www.kcl.ac.uk/research/ethics

KING'S College LONDON

18th July 2013

Maria Theofanous
Unit 1 Signal House
Signal House
137 Great Suffolk Street
London
SE1 1P2

Dear Maria,

REP(EM)/12/13-63 - The effect of Concept mapping on reading comprehension of students with reading difficulties in Cyprus

I am pleased to inform you that the above application has been reviewed by the E&M Research Ethics Panel that FULL APPROVAL is now granted with the following proviso:

1. Information Sheets: please give a specific date (**/**/**) after which participants can no longer withdraw their data.

Please ensure that you follow all relevant guidance as laid out in the King's College London Guidelines on Good Practice in Academic Research (http://www.kcl.ac.uk/college/policyzone/index.php?id=247).

For your information ethical approval is granted until **18/07/16**. If you need approval beyond this point you will need to apply for an extension to approval at least two weeks prior to this explaining why the extension is needed, (please note however that a full re-application will not be necessary unless the protocol has changed). You should also note that if your approval is for one year, you will not be sent a reminder when it is due to lapse.

Ethical approval is required to cover the duration of the research study, up to the conclusion of the research. The conclusion of the research is defined as the final date or event detailed in the study description section of your approved application form (usually the end of data collection when all work with human participants will have been completed), not the completion of data analysis or publication of the results. For projects that only involve the further analysis of pre-existing data, approval must cover any period during which the researcher will be accessing or evaluating individual sensitive and/or un-anonymised records. Note that after the point at which ethical approval for your study is no longer required due to the study being complete (as per the above definitions), you will still need to ensure all research data/records management and storage procedures agreed to as part of your application are adhered to and carried out accordingly.

If you do not start the project within three months of this letter please contact the Research Ethics Office.

Should you wish to make a modification to the project or request an extension to approval you will need approval for this and should follow the guidance relating to modifying approved applications: http://www.kcl.ac.uk/innovation/research/support/ethics/applications/modifications.aspx
The circumstances where modification requests are required include the addition/removal of participant groups, additions/removal/changes to research methods, asking for additional data from participants, extensions to the ethical approval period. Any proposed modifications should only be carried out once full approval for the modification request has been granted.

Any unforeseen ethical problems arising during the course of the project should be reported to the approving committee/panel. In the event of an untoward event or an adverse reaction a full report must be made to the Chair of the approving committee/review panel within one week of the incident.

Please would you also note that we may, for the purposes of audit, contact you from time to time to ascertain the status of your research.

If you have any query about any aspect of this ethical approval, please contact your panel/committee administrator in the first instance (http://www.kcl.ac.uk/innovation/research/support/ethics/contact.aspx). We wish you every success with this work.

With best wishes

Yours sincerely

Rosie Pearson
Research Support Assistant

Appendix 2 – Approval letter by the Centre of Educational Research and Assessment in Cyprus

Σχόλια για ερευνητικές προτάσεις

Θέμα έρευνας:	Η αποτελεσματικότητα χρήσης οπτικών γνωστικών οργανωτών (graphic organisers) στην αναγνωστική επίδοση παιδιών με αναγνωστικές δυσκολίες.
Κωδικός έρευνας:	188413
Ονοματεπώνυμο Ερευνητή:	Θεοφάνους Μαρία
Διεύθυνση στην οποία υποβλήθηκε:	Διεύθυνση Δημοτικής Εκπαίδευσης
Ημερομηνία υποβολής στο ΚΕΕΑ:	29/07/2013

1. **Σκοπός -ερευνητικά ερωτήματα/υποθέσεις**

   Δεν υπάρχουν παρατηρήσεις.

2. **Χρησιμότητα-αναγκαιότητα της έρευνας**

   Δεν υπάρχουν παρατηρήσεις.

3. **Διαδικασία συλλογής δεδομένων**

   Δεν υπάρχουν παρατηρήσεις.

4. **Δειγματοληψία**

   Δεν υπάρχουν παρατηρήσεις.

5. **Ερευνητικά εργαλεία**

   Η ερευνήτρια θα πρέπει να διορθώσει προσεκτικά τα ορθογραφικά και τα συντακτικά λάθη σε όλα τα ερευνητικά εργαλεία (έντυπα προς τους εκπαιδευτικούς, τους γονείς και τους μαθητές).

6. **Χρόνος απασχόλησης**

   Δεν υπάρχουν παρατηρήσεις.

7. **Χρονική περίοδος έρευνας και αναμενόμενος χρόνος αποτελεσμάτων**

Δεν υπάρχουν παρατηρήσεις.

8. **Θέματα ηθικής και ερευνητικής δεοντολογίας**

Δεν υπάρχουν παρατηρήσεις.

9. **Εισήγηση ΚΕΕΑ**

Η έρευνα να προχωρήσει ως έχει για υλοποίηση	
Η έρευνα να προχωρήσει για υλοποίηση, νοουμένου ότι θα γίνουν οι αλλαγές/τροποποιήσεις/εισηγήσεις που επισημαίνονται πιο πάνω	√
Η αίτηση για έρευνα να υποβληθεί ξανά αφού ληφθούν υπόψη τα πιο πάνω	

Appendix 3 – Authorisation letter by Ministry of Education and Culture

ΚΥΠΡΙΑΚΗ ΔΗΜΟΚΡΑΤΙΑ

ΥΠΟΥΡΓΕΙΟ
ΠΑΙΔΕΙΑΣ ΚΑΙ ΠΟΛΙΤΙΣΜΟΥ

ΔΙΕΥΘΥΝΣΗ
ΔΗΜΟΤΙΚΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

Αρ. Φακ.: 7.19.46.6/34
Αρ. Τηλ. : 22800665
Αρ. Φαξ : 22809513
E-mail : dde@moec.gov.cy

22 Αυγούστου, 2013

Κυρία Μαρία Θεοφάνους
Αγίου Επικτήτου 13
2643 Εργάτες

Θέμα: Άδεια για διεξαγωγή έρευνας με εκπαιδευτικούς δημοτικών σχολείων

Αγαπητή κυρία Θεοφάνους,

Έχω οδηγίες να αναφερθώ στη σχετική με το πιο πάνω θέμα αίτησή σας προς το Κέντρο Εκπαιδευτικής Έρευνας και Αξιολόγησης, που υποβλήθηκε στις 22 Ιουλίου 2013, και να σας πληροφορήσω ότι εγκρίνεται το αίτημά σας για διεξαγωγή έρευνας με εκπαιδευτικούς των δημοτικών σχολείων που εσείς θα επιλέξετε, με θέμα *«Η αποτελεσματικότητα χρήσης οπτικών γνωστικών οργανωτών στην αναγνωστική επίδοση παιδιών με αναγνωστικές δυσκολίες»*, την προσεχή σχολική χρονιά 2013-2014, νοουμένου ότι θα ληφθούν υπόψη τα σχόλια του Κέντρου Εκπαιδευτικής Έρευνας και Αξιολόγησης, τα οποία σας αποστέλλονται συνημμένα για δική σας ενημέρωση. Θα πρέπει, επίσης, να παρουσιάζετε το Αναλυτικό Σχέδιο Έρευνας, σε περίπτωση που αυτό σας ζητηθεί.

2. Νοείται, βέβαια, ότι πρέπει να εξασφαλιστεί η άδεια των διευθυντών/διευθυντριών των σχολείων που θα επισκεφθείτε, εκ των προτέρων, ώστε να ληφθούν όλα τα απαραίτητα μέτρα για να μην επηρεαστεί η ομαλή λειτουργία τους. Επίσης, θα πρέπει να έχετε τη συγκατάθεση των εκπαιδευτικών, στην τάξη των οποίων θα μπείτε για παρατήρηση. Η έρευνα θα πρέπει να διεξαχθεί με ιδιαίτερα προσεγμένο τρόπο, ώστε να μη θίγεται το έργο των εκπαιδευτικών, το σχολικό περιβάλλον ή οι οικογένειες των μαθητών και όλες οι δραστηριότητες που θα αναπτυχθούν πρέπει να εμπίπτουν μέσα στο πλαίσιο που καθορίζεται από το Αναλυτικό Πρόγραμμα. Οι εκπαιδευτικοί πρέπει να λάβουν μέρος στην έρευνα στο μη διδακτικό τους χρόνο. Σημειώνεται, επίσης, ότι τα πορίσματα κρίνεται απαραίτητο να είναι ανώνυμα και οι πληροφορίες που θα συλλεγούν να τηρηθούν απόλυτα εμπιστευτικές και αποκλειστικά και μόνο για το σκοπό της έρευνας.

3. Η παρούσα έγκριση παραχωρείται με την προϋπόθεση ότι τα πορίσματα της εργασίας, θα κοινοποιηθούν μόλις αυτή ολοκληρωθεί, στη Διεύθυνση Δημοτικής Εκπαίδευσης για σχετική μελέτη και κατάλληλη αξιοποίηση.

Με εκτίμηση,

(Ελπιδοφόρος Νεοκλέους)
για Γενική Διευθύντρια

Κοιν.: Π.Λ.Ε., Επαρχιακά Γραφεία Παιδείας
: Ε.Δ.Ε. Ειδικής Εκπαίδευσης, Επαρχιακά Γραφεία Παιδείας

AT/AT EREVNES

Appendix 4 – Information sheet and consent form for teachers

This will be translated in Greek

FOR TEACHERS
INFORMATION SHEET FOR PARTICIPANTS

REC Reference Number: REP (EM)/12/13-63

KING'S College LONDON

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET

The effect of concept mapping on reading comprehension of students with reading difficulties in Cyprus

You are being invited to be involved in this original research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss with others if you wish. Please ask me if there is anything that is not clear or if you would like more information.

Aims and Benefits

This research project aims to evaluate the use and effectiveness of concept mapping, its implementation in class to improve performance and in particular reading by children with reading difficulties.

As a participant teacher you will be in control of the implementation of this technique in your class. Develop, design and implement it in your own particular teaching style. There are no specific guidelines that have to be followed in its application in your class. As a co-researcher in this project not only you will be able to draw your own conclusions on concept mapping and its effectiveness in the enhancement of your students' reading capabilities but it will provide another benchmark in your professional development and enrichment of your practical skills as a teacher.

Please note that this is by means an evaluation exercise of your teaching methodology or your teaching skills within your classroom. it is simply a means of introducing and evaluating the effectiveness of concept mapping as a possible useful teaching method.

What will this involve and what I am asked to do?

This project will start with a brief training session at a place of your choosing where an introduction of concept mapping and further information will be provided by me. Following the introduction, you will be asked if I can interview you. You will be requested that an audio record of this interview is kept as a data log of your initial views.

However, you are also requested to keep a research diary throughout the project as I will value the recording of your thoughts and detailed progress and implementation of concept mapping in your classes and the observations and conclusions you draw. The diaries are important as they provide first hand evaluation and insights from participants such as yourself effectively using concept mapping and tracking its effectiveness or any difficulties encountered with its implementation and any observations you have. The research diaries will be appreciated feedback and your active recording in the diary will be much valued and I appreciate that this might not be on a class by class basis. It is not the frequency of diary recording that is important but your observation and first hand conclusions and insight that are relevant.

Four classroom observations will be undertaken as well, which will be followed by four individual interviews. All interviews will be based on a semi structured interview pattern and will take approximately 40 minutes.

It is also important that you note the following:

All interviews conducted and the diary will be anonymous.
If you consent to the use of audio recording please note that the recordings will transcribed into text form and deleted upon transcription.
If you consent, part of your transcripted words and phraseology can be used in text form. Again this will be anonymous and there will be no way to trace this back to you.
All interviews given and the research diaries will be strictly confidential and no one will have access to any identifiable data.
The research data will be stored in electronic format at King's College London for one year.
You will of course be provided with a summary of the results of this project once this is completed, if so you wish.
Your cooperation and participation within this study is valued and you will be asked to sign a consent form for your participation.

If you decide to take part you are still free to withdraw from the study at any time and without giving a reason for up to a month after the completion of the project: 30 September 2015.
Thank you for your cooperation. Please find overleaf mine and my supervisor's contact details for your information.

This will be translated in Greek

Please feel free to contact me with any questions at any time:	If you feel that this study has harmed you in any way you can also contact my university in London using the details below:
Maria Theofanous Email: maria.theofanous@kcl.ac.uk Address: King's College London Waterloo Bridge Wing London, SE1 9NH	Dr. Chris Abbott Email : chris.abbott@kcl.ac.uk Address: King's College London Waterloo Bridge Wing London, SE1 9NH Tel: 004420 7848 3165

This will be translated in Greek

CONSENT FORM FOR PARTICIPANTS IN RESEARCH STUDIES

KING'S College LONDON

Please complete this form after you have read the Information Sheet and listened to an explanation about the research.

Title of Study: The effect of concept mapping on reading comprehension of students with reading difficulties in Cyprus

King's College Research Ethics Committee Ref: _____

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

	Please tick or initial
• I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data up to one month after the completion of the project which is targeted for 30 September 2015.	☐
• The information you have submitted will be published as a report; please indicate whether you would like to receive a copy in a summary form.	☐
• I understand that confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications.	☐
• I consent to my interview being audio recorded.	☐
• I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the UK Data Protection Act 1998.	☐

Participant's Statement:

I _____

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed Date

ΕΝΗΜΕΡΩΤΙΚΟ ΦΥΛΛΑΔΙΟ ΓΙΑ ΣΥΜΜΕΤΕΧΟΝΤΕΣ

REC Reference Number: REP (EM)/12/13-63

ΘΑ ΣΑΣ ΔΩΘΕΙ ΑΝΤΙΓΡΑΦΟΥ ΑΥΤΟΥ ΤΟΥ ΦΥΛΛΑΔΙΟΥ

Η αποτελεσματικότητα χρήσης οπτικών γνωστικών οργανωτών (graphic organisers) στην αναγνωστική επίδοση παιδιών με αναγνωστικές δυσκολίες

Σας προσκαλώ να συμμετάσχετε σε αυτό το ερευνητικό πρόγραμμα. Αυτό θα γίνει μόνο εάν το θέλετε. Αν επιλέξετε να μην συμμετάσχετε, δεν θα υπάρξει κανένα πρόβλημα. Πριν αποφασίσετε αν θέλετε να συμμετάσχετε είναι σημαντικό να καταλάβεται τι θα ζητηθεί από εσάς. Παρακαλώ όπως διαβάσετε πιο κάτω προσεκτικά. Παρακαλώ ρωτήστε με εάν έχετε οποιαδήποτε απορία.

Στόχοι και Ωφελήματα

Αυτό το ερευνητικό πρόγραμα έχει στόχο την αξιολόγηση της χρήσης των οπτικών γνωστικών οργανωτών για ενίσχυση τη επίδοσης και ειδικότερα της αναγνωστικής επίδοσης των παιδιών με αναγνωστικές δυσκολίες.

Σαν συμμετέχοντας εκπαιδευτικός θα έχετε τον απόλυτο έλεγχο εφαρμογής της μεθόδου αυτής στην τάξη σας. Ο σχεδιασμός, η ανάπτυξη και η εφαρμογή της είναι εναπόκειται σε εσάς. Σαν συνεργάτης στην έρευνα αυτή μπορείτε να βγάλετε τα δικά σας συμπεράσματα για την μέθοδο και την αποτελεσματοκότητα της ως προς την βελτίωση της αναγνωστικής κατανόησης των μαθητών. Επίσης σας παρέχει την δυνατότητα να εμπλουτίσετε τις πρακτικές σας ικανότητες σαν εκπαιδευτικός.

Αξίζει να σημειωθεί ότι αυτή η έρευνα δεν είναι με κανένα τρόπο έρευνα αξιολόγησης της δουλειά σας σαν εκπαιδευτικός. Είναι απλά ένας τρόπος συλλογής πληροφοριών ως προς την επίδραση μιας μεθόδου διδασκαλίας που μπορεί να αποδειχθεί χρήσιμη.

Τι περιλαμβάνει και τι πρέπει να κάνω?

Το ερευνητικό πρόγραμμα αυτό θα αρχίσει με μία σύντομη συνάντηση μαζί μου σε μέρος της επιλογή σας όπου μια εισαγωγή στους οπτικούς γνωστικούς οργανωτές θα λάβει χώρα. Με το τέλος της συνάντησης θα σας ζητηθεί να δώσετε μία μικρή συνέντευξη με τις αρχικές απόψεις για το θέμα. Ζητώ την συγκατάθεση σας επίσης να ηχογραφήσω την συνέντευξη αυτή.

Σημειώνεται, ότι θα σας ζητηθεί επίσης να κρατήσετε ένα ερευνητικό ημερολόγιο καθόλη τη διάρκεια του ερευνητικού προγράμματος όπου θα εκτιμήσω την καταγραφή των απόψεων σας μια λεπτομερή καταγραφή της εφαρμογής και χρήσης της τεχνικής αυτής στην τάξη σας καθώς και οποιαδήποτε συμπεράσματα στα οποία προβείτε. Τα ημερολόγια είναι σημαντικά καθώς παρέχουν μια αβίαστη αξιολόγηση και άμεσες απόψεις για τη χρήση των οπτικών γνωστικών οργανωτών. Τα ημερολόγια είναι μια ανατροφοδότηση την οποία θα εκτιμήσω. Παρακαλώ όπως αναφέρετε ότι προβλήματα, προβληματισμούς, απόψεις και παρατηρήσεις που κάνετε ως προς το θέμα αυτό. Βέβαια εκτιμώ το φόρτο εργασίας σας και καταλαβαίνω ότι η καταγραφή μπορεί να μην είναι τόσο συχνή. Δεν είναι η συχνότητα που έχει σημασία αλλά οι παρατηρήσεις σας και προσωπικές αξιολογήσεις σας τα οποία εκτιμώ.

Τεσσερις παρακολουθήσεις μαθημάτων στα τμήματα ένταξης θα λάβουν χώρα επίσης κατα τη διάρκεια της σχολικής χρονιάς οι οποίες θα ακολουθηθούν από τέσσερις συνεντεύξεις και πάλι οι οποίες δεν θα έχουν διάρκεια μεγαλύτερη από 40 λεπτά.

Παρακαλώ σημειώστε τα ακόλουθα:

1. Ολές οι συνεντεύξεις θα είναι ανώνυμες.
2. Οι συνεντεύξεις σας θα καταγραφούν σε έντυπη μορφή και οι ηχογραφήσεις θα διαγραφούν.
3. Μέρος των καταγεγραμένων συνεντεύξεων σας μπορεί να χρησιμοποιηθεί στην τελική διατριβή μου. Αυτό θα γίνει ανώνυμα και δεν θα υπάρχει κανένας τρόπος να συνδεθούν αυτά με εσάς.
4. Ολες οι συνεντεύξεις καθώς και τα ερευνητικά ημερολόγια είναι άκρως εμπιστευτικά και κανείς δεν θα έχει πρόσβαση σε αυτά εκτός από εμένα.
5. Τα ερευνητικά δεδομένα θα φυλάσσονται σε ηλεκτρονική μορφή στο King's College London για ένα χρόνο.
6. Βέβαια εαν το θελήσετε, θα σας δωθεί μια περίληψη των αποτελεσμάτων της έρευνας μου όταν ολοκληρωθεί.
7. Η συμμετοχή σας και συνεργασία σας εκτιμάται βαθύτατα και θα σας ζητηθεί να υπογράψετε μια φόρμα συγκατάθεσης για την συμμετοχή σας.

Εάν αποφασίσετε να συμμετάσχετε μπορείτε να αλλάξετε γνώμη και να μου ζητήσετε να αποσύρω τα δεδομένα σας σε οποια δήποτε στιγμή μέχρι τις 30 Σεπτεμβρίοιυ 2015.

ΔΗΛΩΣΗ ΣΥΓΚΑΤΑΘΕΣΗΣ ΣΕ ΕΡΕΥΝΗΤΙΚΑ ΠΡΟΓΡΑΜΜΑΤΑ

Παρακαλώ συμπληρώστε αυτή την αίτηση αφού έχετε διαβάσει το ενημερωτικό φυλλάδιο και σας έχουν δωθεί εξηγήσεις για το περιεχόμενο της έρευνας.

KING'S College LONDON

Τίτλος έρευνας: ***Η αποτελεσματικότητα χρήσης οπτικών γνωστικών οργανωτών (graphic organisers) στην αναγνωστική επίδοση παιδιών με αναγνωστικές δυσκολίες***

King's College Research Ethics Committee Ref: REP (EM)/12/13-63

Ευχαριστούμε που δεχτήκατε να λάβετε μέρος σε αυτή την έρευνα. Το άτομο που οργάνωσε την έρευνα πρέπει να δώσει εξηγήσεις για το τίθεται υπό έρευνα. Αν έχετε οποιεσδήποτε απορίες από το ενημερωτικό φυλλάδιο παρακαλώ ρωτήστε την ερευνήτρια πριν αποφασίσετε να λάβετε μέρος. Θα σας δωθεί φωτοτυπία αυτού του φυλλαδίου για να το κρατήσετε.
Παρακαλώ σημειώσε ότι θα ισχύσει πλήρης ανωνυμία και εμπιστευτικότητα και δεν θα μπορέσει κανείς να σας αναγνωρίσει και να σας ταυτοποιήσει απο την έρευνα αυτή.

Please tick or initial

- Αντιλαμβάνομαι ότι εάν σε οποιαδήποτε στιγμή αποφασίσω να αποσυρθώ από την έρευνα, έχω δικαίωμα να ειδοποιήσω την ερευνήτρια και να αποσυρθώ άμεσα. Επίσης τα δεδομένα από εμένα θα αποσυρθούν από την έρευνα μέχρι και ένα μήνα μετά το τέλος της έρευνας που στοχεύεται για τις 30 Σεπτεμβρίου 2015. ☐
- Οι πληροφορίες που θα συλλεχθούν θα δημοσιευθούν. Παρακαλώ δηλώστε εάν θέλετε να λάβετε τα αποτελέσματα σε περιληπτική μορφή. ☐
- Αντιλαμβάνομαι ότι θα ισχύσει πλήρη εμπιστευτικότητα και ανωνυμίας και δεν θα μπορώ να ταυτοποιηθώ μέσα από οποιεσδήποτε δημοσιεύσεις. ☐
- Δίνω συγκατάθεση μου να ηχογραφηθεί η συνέντευξη μου. ☐
- Δίνω την συγκατάθεση μου για επεξεργασία των προσωπικών μου δεδομένων για τους σκοπούς της έρευνας. Αντιλαμβάνομαι ότι οι πληροφορίες αυτές θα διαχειριστούν ανάλογα με τους όρους του Νόμου περί Προστασίας Δεδομένων του 1998. ☐

Δήλωση συμμετοχής:

Εγώ η/ο _____

συμφωνώ ότι μου έχουν δωθεί εξηγήσεις για την πιο πάνω έρευνα και συμφωνώ να λάβω μέρος. Έχω διαβάσει και το ενημερωτικό φυλλάδιο και καταλαβαίνω το περιεχόμενο της έρευνας.

Υπογραφή **Ημερομηνία**

Appendix 5 – Information sheet and consent form for students

This will be translated in Greek

FOR CHILDREN

Hello, my name is Maria. I will be working with your teacher on a project that looks at a particular way of teaching.

I will read this paper with you, which explains why I am in your classroom. Please ask me if you have any questions. Thank you!

Why am I here?	I want to understand if this way of teaching is effective and to see if it improves children's reading and help them do better at school.
Why are you involved and what do you need to do?	Don't worry! There is no homework or additional work on your part and I will not be asking you any questions! I am not here to test you in any way. However I need your permission to come and attend classes with you. I will be sitting at the back of the classroom and I will be just listening in the class. By your agreement for me to attend classes with you, you are helping your teacher and me to learn more about this way of teaching.
What's the next step?	With your agreement, the lesson will be audio recorded. Therefore I will only record your voice. The only person who will be hearing the recordings will be me. The recordings will also be anonymous. Even if you are comfortable, please just tell me and I can leave your classroom. If you are comfortable with me staying in your classroom, at a later date, up until 30 September 2015, you can ask me to remove your classroom observation from my study. You don't need to offer any explanation at any point in time. Please remember: You are in control! Also, as you are under 18 years old, your parents will be informed and I shall be requesting their consent.
What will I do with my findings?	My findings will be written in my thesis which is like a very long essay. The essay will be available to other teachers and academics who are interested in new way of teaching.

Please feel free to contact me with any questions at any time:

Maria Theofanous
Email: maria.theofanous@kcl.ac.uk
Address: King's College London
Waterloo Bridge Wing
London, SE1 9NH

If you feel that this study has harmed you in any way you can also contact my university in London using the details below:

Dr. Chris Abbott
Email : chris.abbott@kcl.ac.uk
Address: King's College London
Waterloo Bridge Wing
London, SE1 9NH
Tel: 004420 7848 3165

This will be translated in Greek

CONSENT FORM FOR PARTICIPANTS IN RESEARCH STUDIES

Please complete this form after you have read the Information Sheet with the researcher and listened to an explanation about the research.

Title of Study: _
The effect of concept mapping on reading comprehension of students with reading difficulties in Cyprus

King's College Research Ethics Committee Ref REP (EM)/12/13-63

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.
Please note that confidentiality and anonymity will be maintained and it will not be possible to identify you from any publications.

Please tick or initial

- I understand that if I decide at any time during the research that I no longer wish to participate in this project , I can notify the researcher involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data up to one month after the completion of the study. ☐
- I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the Data Protection Act 1998. ☐
- I consent to the classroom observation to be audio recorded. ☐

Participant's Statement:
I _____
agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed Date

Γειά σου, είμαι η Μαρια. Θα συνεργαστώ με την/τον δάσκαλο σου σε ένα πρόγραμμα που κοιτάζει ένα συγκεκριμένο τρόπο διδασκαλίας.

Θα διαβάσω αυτό το φυλλάδιο μαζί σου το οποίο εξηγά γιατί είμαι στη τάξη σου. Σε παρακαλώ, κάνε μου ερωτήσεις εάν δεν καταλαβαίνεις κάτι. Ευχαριστώ!

Γιατί είμαι εδώ;	Θέλω να καταλάβω αν αυτός ο τρόπος διδασκαλίας είναι αποτελεσματικός και άν βελτιώνει την ανάγνωση των παιδιών και άν τα βοηθά να τα πηγαίνουν καλύτερα στο σχολείο.
Τι χρειάζεται να κάνεις;	Μην ανησυχείς! Δεν θα έχει εργασίες για το σπίτι ούτε κάτι άλλο να κάνεις. Δεν θα σου κάνω καμία ερώτηση. Δεν είμαι εδώ για να εξετάσω την επίδοση σου. Όμως χρείαζομαι την άδεια σου για να μπορώ να έρχομαι στην τάξη σου. Θα κάθομαι στο πίσω μέρος της τάξης και θα παρακολουθώ απλά το μάθημα. Με την άδεια σου να παρακολουθώ το μάθημα σου, βοηθάς την/τον δάσκαλο σου να και εμένα να μάθουμε περισσότερα για τον τρόπο αυτό διδασκαλίας.
Ποιό είναι το επόμενο βήμα;	Με την άδεια σου, το μάθημα θα ηχογραφηθεί άρα μόνο η φωνή σου θα ακούγεται. Το μόνο άτομο που θα ακούσει τις ηχογραφήσεις θα είμαι εγώ. Οι ηχογραφήσεις θα είναι ανώνυμες. Μπορείς να μου ζητήσεις να φύγω από την τάξη σου εάν νιώσεις άβολα οποιαδήποτε στιγμή. Ακόμα και μετά το τέλος του προγράμματος αυτού μπορείς να μου ζητήσεις μέχρι και τις 30 Σεπτεμβρίου 2015 να αφαιρέσω την παρακολούθηση του μαθήματος σου από την έρευνα μου χωρίς να χρειάζεται να μου εξηγήσεις γιατί. Να θυμάσε: Εσύ έχεις τον έλεγχο! Επίσης επειδή είσαι κάτω των 18 ετών, θα ενημερώσω και τους γονείς σου και θα ζητήσω και την δική τους συγκατάθεση.
Τι θακάνω με τα αποτελέσματα;	Τα αποτελέσματα της έρευνα μου θα τα γράψω στην διατριβή μου, που είναι κάτι σαν μια πολύ μεγάλη έκθεση. Η διατριβή αυτή θα είναι προσβάσιμη και σε άλλους δασκάλους που ενδιαφέρονται να μάθουν για νέους τρόπους διδασκαλίας.

Μπορείτε να επικοινωνήσετε μαζί μου με ερωτήσεις ανα πάσα στιγμή:

Μαρια Θεοφάνους
Ηλεκτρονικό Ταχυδρομείο: maria.theofanous@kcl.ac.uk
Διεύθυνση: King's College London
Waterloo Bridge Wing
London, SE1 9NH

Εάν νιώσετε ότι η έρευνα αυτή σας έχει βλάψει με οποιοδήποτε τρόπο μπορείτε να επικοινωνήσετε με τον επιβλέποντα καθηγητή μου:

Dr. Chris Abbott
Ηλεκτρονικό Ταχυδρομείο: chris.abbott@kcl.ac.uk
Διεύθυνση: King's College London
Waterloo Bridge Wing
London, SE1 9NH
Τηλέφωνο: 0044 20 7848 3165

ΔΗΛΩΣΗ ΣΥΓΚΑΤΑΘΕΣΗΣ ΓΙΑ ΠΑΙΔΙΑ ΣΕ ΕΡΕΥΝΗΤΙΚΑ ΠΡΟΓΡΑΜΜΑΤΑ

KING'S College LONDON

Παρακαλώ συμπληρώστε αυτή την αίτηση αφού έχετε διαβάσει το ενημερωτικό φυλλάδιο και σας έχουν δωθεί εξηγήσεις για το περιεχόμενο της έρευνας.

Τίτλος έρευνας: ***Η αποτελεσματικότητα χρήσης οπτικών γνωστικών οργανωτών (graphic organisers) στην αναγνωστική επίδοση παιδιών με αναγνωστικές δυσκολίες***

King's College Research Ethics Committee Ref: REP (EM)/12/13-63

Ευχαριστούμε που δεχτήκατε να λάβετε μέρος σε αυτή την έρευνα. Το άτομο που οργάνωσε την έρευνα πρέπει να δώσει εξηγήσεις για το τίθεται υπό έρευνα. Αν έχετε οποιεσδήποτε απορίες από το ενημερωτικό φυλλάδιο παρακαλώ ρωτήστε την ερευνήτρια πριν αποφασίσετε να λάβετε μέρος. Θα σας δωθεί φωτοτυπία αυτού του φυλλαδίου για να το κρατήσετε.

Παρακαλώ σημειώσε ότι θα ισχύσει πλήρης ανωνυμία και εμπιστευτικότητα και δεν θα μπορέσει κανείς να σε αναγνωρίσει και να σε ταυτοποιήσει απο την έρευνα αυτή.

Please tick or initial

- Αντιλαμβάνομαι ότι εάν σε οποιαδήποτε στιγμή αποφασίσω να αποσυρθώ από την έρευνα, έχω δικαίωμα να ειδοποιήσω την ερευνήτρια και να αποσυρθώ άμεσα. Επίσης τα δεδομένα από εμένα θα αποσυρθούν από την έρευνα μέχρι και ένα μήνα μετά το τέλος της έρευνας. ☐
- Δίνω την συγκατάθεση μου για επεξεργασία των προσωπικών μου δεδομένων για τους σκοπούς της έρευνας. Αντιλαμβάνομαι ότι οι πληροφορίες αυτές θα διαχειριστούν ανάλογα με τους όρους του Νόμου περί Προστασίας Δεδομένων του 1998. ☐
- Δίνω την συγκατάθεση μου για ηχογράφηση των παρακολουθήσεων στην τάξη. ☐

Δήλωση συμμετοχής:

Εγώ η/ο _____

συμφωνώ ότι μου έχουν δωθεί εξηγήσεις για την πιο πάνω έρευνα και συμφωνώ να λάβω μέρος. Έχω διαβάσει και το ενημερωτικό φυλλάδιο και καταλαβαίνω το περιεχόμενο της έρευνας.

Υπογραφή **Ημερομηνία**

Appendix 6 – Information sheet and consent form for parents

This will be translated in Greek

INFORMATION SHEET FOR PARTICIPANTS

REC Reference Number: REP (EM)/12/13-63

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET

The effect of concept mapping on reading comprehension of students with reading difficulties in Cyprus

The main aim of this study is to explore and assess a particular teaching method and if it can be utilized to improve the performance and in particular reading of children.
Your child will not have to actively participate or undertake any additional work. I will not be testing your child in any way. I shall simply be attending their classroom. This is why I request your kind permission to attend your child's classes. Whilst I will be attending classes with your child I will be in the background and I will not be of any distraction to them. With your agreement for me to attend your child's classes, you are helping their teacher and me to learn more about this teaching method, its implementation and effectiveness.
With your consent, the lesson will be audio recorded. Only your child's voice will be heard by me when I am reviewing the data. The recordings will be anonymous. If at any time your child feels uncomfortable they can simply ask me to leave the classroom. No explanation needs to be provided. Even if at a later date, up to 30 September 2015, you or your child can ask me to have the audio recording omitted from the data.
The findings will be collated and evaluated in drawing conclusions in the effectiveness of this teaching method as part of my PhD study. My thesis may also be of interest to academics and other teaching professionals.

Please feel free to contact me with any questions at any time:

Maria Theofanous
Email: maria.theofanous@kcl.ac.uk
Address: King's College London
Waterloo Bridge Wing
London, SE1 9NH

If you feel that this study has harmed you in any way you can also contact my university in London using the details below:

Dr. Chris Abbott
Email : chris.abbott@kcl.ac.uk
Address: King's College London
Waterloo Bridge Wing
London, SE1 9NH
Tel: 0044 20 7848 3165

This will be translated in Greek

FOR PARENTS

CONSENT FORM FOR PARENTS IN RESEARCH STUDIES

Please complete this form after you have read the Information Sheet an listened to an explanation about the research.

KING'S College LONDON

Title of Study: ***The effect of concept mapping on reading comprehension of students with reading difficulties in Cyprus***

King's College Research Ethics Committee Ref: REP (EM)/12/13-63

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.
Please note that confidentiality and anonymity will be maintained and it will not be possible to identify you child from any publications.

	Please tick or initial
• I understand that if I decide at any time during the research that I no longer wish for my child to participate in this project, I can notify the researcher involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my child's data up to one month after the completion of the study.	☐
• I consent to the processing of my child's personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the Data Protection Act 1998.	☐
• I consent to the classroom observation being audio recorded.	☐

Participant's Statement:

I _____

agree that the research project named above has been explained to me to my satisfaction and I agree for my child to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Signed Date

ΕΝΗΜΕΡΩΤΙΚΌ ΦΥΛΛΑΔΙΟ ΓΙΑ ΣΥΜΜΕΤΕΧΟΝΤΕΣ

REC Reference Number: REP (EM)/12/13-63

ΘΑ ΣΑΣ ΔΩΘΕΙ ΑΝΤΙΓΡΑΦΟ ΑΥΤΟΥ ΤΟΥ ΕΝΗΜΕΡΩΤΙΚΟΥ ΦΥΛΛΑΔΙΟΥ

Η αποτελεσματικότητα χρήσης οπτικών γνωστικών οργανωτών (graphic organisers) στην αναγνωστική επίδοση παιδιών με αναγνωστικές δυσκολίες

Ο κύριος στόχος αυτής της έρευνας είναι να εξευρευνηθεί και να αξιολογηθεί μια συγκεκριμένη μέθοδος διδασκαλίας και το κατα πόσο μπορεί να χρησιμοποιηθεί για βελτίωση της επίδοσης και αναγνωστικής επίδοσης των παιδιών.
Το παιδί σας δεν θα έχει ενεργό ρόλο στην έρευνα ούτε και θα χρειαστεί να κάνει οποιαδήποτε εργασία. Δεν θα εξετάσω το παιδί σας με κανένα τροπο. Απλά θα είμαι στην τάξη του. Γι' αυτό και ζητώ την συγκατάθεση σας για να μπορώ να είμαι στην τάξη με το παιδί σας κατα τη διάρκεια της διδασκαλίας του. Καθόλη τη διάρκεια της παρουσίας μου στη τάξη θα είμαι στο παρασκήνιο και δεν θα αποσπώ την προσοχή του με κανένα τρόπο. Με τη συγκατάθεση σας να είμαι στην τάξη του παιδιού σας βοηθάτε τον εκπαιδευτικό του και εμένα να μάθουμε περισσότερα για αυτή τη μέθοδο διδασκαλίας, την εφαρμογή και αποτελεσματικότητα της.
Με τη συγκατάθεση σας, το μάθημα θα ηχογραφηθεί. Η φωνή του παιδιού σας θα ακουστεί μόνο από εμένα όταν προβαίνω σε ανάλυση των δεδομένων μου. Οι ηχογραφήσεις θα είναι ανώνυμες. Εάν σε οποιαδήποτε στιγμή το παιδί σας νιώσει άβολα με την παρουσία μου, μπορεί να μου ζητήσει να φύγω από τη τάξη χωρίς καμία εξήγηση. Ακόμα και αν μετά το τέλος της έρευνας, μέχρι 30 Σεπτεμβρίου 2015, εσείς και το παιδί σας μπορείτε να ζητήσετε διαγραφή των ηχογραφήσεων και μη περίληψη τους στην ανάλυση των δεδομένων μου.
Τα αποτελέσματα της έρευνας μου θα αξιολογηθούν για να βγάλω αποτελέσματα για την αποτελεσματικότητα της τεχνικης αυτής στα πλαίσια της διδακτορικής μου διατριβής. Η διδακτορική μου διατριβή μπορεί να είναι προσβάσιμη από άλλους ακαδημαικούς και εκπαιδευτικούς.

Μπορείτε να επικοινωνήσετε μαζί μου με ερωτήσεις ανα πάσα στιγμή:

Μαρια Θεοφάνους
Ηλεκτρονικό Ταχυδρομείο: maria.theofanous@kcl.ac.uk
Διεύθυνση: King's College London
Waterloo Bridge Wing
London, SE1 9NH

Εάν νιώσετε ότι η έρευνα αυτή σας έχει βλάψει με οποιοδήποτε τρόπο μπορείτε να επικοινωνήσετε με τον επιβλέποντα καθηγητή μου:

Dr. Chris Abbott
Ηλεκτρονικό Ταχυδρομείο: chris.abbott@kcl.ac.uk
Διεύθυνση: King's College London
Waterloo Bridge Wing
London, SE1 9NH
Τηλέφωνο: 0044 20 7848 3165

ΔΗΛΩΣΗ ΣΥΓΚΑΤΑΘΕΣΗΣ ΓΙΑ ΓΟΝΕΙΣ ΣΕ ΕΡΕΥΝΗΤΙΚΑ ΠΡΟΓΡΑΜΜΑΤΑ

Παρακαλώ συμπληρώστε αυτή την αίτηση αφού έχετε διαβάσει το ενημερωτικό φυλλάδιο και σας έχουν δωθεί εξηγήσεις για το περιεχόμενο της έρευνας.

KING'S College LONDON

Τίτλος έρευνας: ***Η αποτελεσματικότητα χρήσης οπτικών γνωστικών οργανωτών (graphic organisers) στην αναγνωστική επίδοση παιδιών με αναγνωστικές δυσκολίες***

King's College Research Ethics Committee Ref: REP (EM)/12/13-63

Ευχαριστούμε που δεχτήκατε να λάβετε μέρος σε αυτή την έρευνα. Το άτομο που οργάνωσε την έρευνα πρέπει να δώσει εξηγήσεις για το τίθεται υπό έρευνα. Αν έχετε οποιεσδήποτε απορίες από το ενημερωτικό φυλλάδιο παρακαλώ ρωτήστε την ερευνήτρια πριν αποφασίσετε να λάβετε μέρος. Θα σας δωθεί φωτοτυπία αυτού του φυλλαδίου για να το κρατήσετε.
Παρακαλώ σημειώστε ότι θα ισχύσει πλήρης ανωνυμία και εμπιστευτικότητα για το παιδί σας και δεν θα μπορέσει κανείς να το αναγνωρίσει και να το ταυτοποιήσει απο την έρευνα αυτή.

Please tick or initial

- Αντιλαμβάνομαι ότι εάν σε οποιαδήποτε στιγμή αποφασίσω να μην λάβει μέρος το παιδί μου στην έρευνα, έχω δικαίωμα να ειδοποιήσω την ερευνήτρια και να αποσυρθώ άμεσα. Επίσης τα δεδομένα από το παιδί μου θα αποσυρθούν από την έρευνα μέχρι και ένα μήνα μετά το τέλος της έρευνας. ☐
- Δίνω την συγκατάθεση μου για επεξεργασία των προσωπικών δεδομένων του παιδιού μου για τους σκοπούς της έρευνας. Αντιλαμβάνομαι ότι οι πληροφορίες αυτές θα διαχειριστούν ανάλογα με τους όρους του Νόμου περί Προστασίας Δεδομένων του 1998. ☐
- Δίνω την συγκατάθεση μου για ηχογράφησης των παρακολουθήσεων στην τάξη. ☐

Δήλωση συμμετοχής:

Εγώ η/ο _____

συμφωνώ ότι μου έχουν δωθεί εξηγήσεις για την πιο πάνω έρευνα και συμφωνώ να λάβει μέρος το παιδί μου. Έχω διαβάσει και το ενημερωτικό φυλλάδιο και καταλαβαίνω το περιεχόμενο της έρευνας.

Υπογραφή **Ημερομηνία**

Appendix 7 – Evolving aide-memoire

Initial

Aide Memoire

Subjects	Interview Focus	Observation Focus
General Thoughts/Considerations	x	
Designing the organiser	x	x
Implementation	x	x
How to improve its use	x	x
Effectiveness	x	x
Other uses	x	x
Teachers reactions	x	x
Children reactions/response	x	x

Observation

Introduction (Characteristics of Teacher & Student)
Classroom description (sitting arrangement, teaching techniques, pc etc)
Look for: Actions, Expressions, Gestures, Behaviours – Body Language
The response
Interaction between Teacher and Student
Approach to GO
Comments by teacher and students

Post Observation

Was it successful
Was the text appropriate for GO
Skills development
What needs work in GO use

Final / Revised

Aide Memoire

Subjects	Interview Focus	Observation Focus
General Thoughts/Considerations	x	
Designing the organiser	x	x
Implementation	x	x
How to improve its use	x	x
Effectiveness	x	x
Other uses	x	x
Teachers reactions	x	x
Children reactions/response	x	x
Teachers attitudes	x	x
Motivation/ Incentive	x	
First/ Last thoughts	x	
Impact on both teachers & students	x	
Participation in my research	x	

Observation

Introduction (Characteristics of Teacher & Student)
Classroom description (sitting arrangement, teaching techniques, pc etc)
Look for: Actions, Expressions, Gestures, Behaviours – Body Language
What is interesting / motivational
The response
Factors influencing involvement
Interaction between Teacher and Student
Approach to GO
Comments by teacher and students

Post Observation

Was it successful
Was the text appropriate for GO
Skills development
Difference/ Impact made
What needs work in GO use

Appendix 8 – A sample of my observation notes and observation transcription

Name: [redacted]

Pre Observation

Task Analysis

Specific Learning Objectives : Reading Comprehension & tenses
Long term plans for C – Skills, Focus of study - written comprehension questions
Outline of lesson (see attached)
Why is that text appropriate at the time match reading level of student
Assessment of C performance - q & exercises written
Analysis:
What text is it - 3rd grade text book
Is it appropriate - yes - match reading level / familiar subject
How will it contribute to the C learning and skills - reading comprehension & exercises on tenses
What techniques will be used

- repeated reading
- reading aloud.
- GO after 1st reading
- written open ended questions for comprehension

1st

Name: [redacted]

Introduction:

girl - 4th grade - 10 years old
repeated 1st grade - was attending private school and when came to public school she had to repeat
→ general diagnosis - reading difficulties

twice a week
→ Greek
→ Maths

Classroom Description:

colorful (2 green walls)
two tables opposite
2 boards with information
1 white board
PC with printer
Cupboard with various teaching material
Carpet with cushions for reading on floor

1 sink hand wash

Time	Internal	External
11:00		Banging on walls (next door class)
11:05	Start reading test - C (no GO yet)	
11:06	T correcting word "παιδία" = Π	
11:07	T - start questions on 1st §	
11:08	Π - wrong 1st answer on q.	
	V = 2nd answer	
11:10	start 2nd §	
	T asks what word is 'βασιλόπουλο'	
11:12	T asks q on comp. GO appears C - intrigued	

	Did 1st part of GO - what is Melina doing now.	
11:13	3rd §	
	GO again reading 2nd Part on what will happen	
	Unmoved at beginning	
11:15	start 1st req C - goes to GO to find answer	
	2nd q - T urges C to go to go for answer C - looks at it immediately	
11:17	Back to text T - guides C C cannot find response in text looks frustrated	
11:18	T has to give answer & C untested	
11:19	Start 4th § in text.	
	T - q C - answers with ease	

11:20	Str § T- corrects a phrase Gen Discipline issues Strategies C- leaves a Line - T guides back T corrects anozota T corrects aswaja	Bang on door a child to ask for C to go to Dr. T says no Child leaves
	T-questions A - back to text C- reads silently	
11:23	back to GO T-question C- answers along with T-guiding on GO with finger C- says "Aaa" showing understanding	
11:24 11:25	back to text T-questions	

-	back to text T corrects; kalinora T - says tha C forgot a line T - correct; gracias za Sarapostaiocus Inglugdrou	
11:27	T - guides back to GO questions & C goes to GO to look for answers after T prompts	
11:28	T asks for participant; C answers quickly looking at GO	
11:28:2	next q (until end) Same as previous C answers quickly recalling from GO but in different order & writes down	

Hera – Observation – April 2014 (Third Lesson)

T; Για να μην αναρωτιεσαι, η Μαρια ηρθε να μας δει για να δει τι διαφορετικο γίνεται με μια συγκεκριμένη μέθοδο. Δηλαδή την περασμένη φορά που κάναμε για τον Πάνω και τον Κατω, στο πίνακα εκαναμε κάτι παράξενο που δεν το συνηθίζουμε στο μάθημα μας, κάτι με γεωμετρικά σχήματα τελοσπάντων. Ολες τις πληροφορίες μου τες έβαλα? Οταν εμιλούσα για τον Πάνω, για τον Κάτω? Θυμάσαι? Που έγραφα?

St; Μέσα σε κουτιά.

T; Μπράβο μέσα σε κουτιά οργανώναμε τη μάθηση μας. Κάπως έτσι θα το κάνουμε και σήμερα. Ντάξει? Λοιπόν, κοίτα την καλά τωρά και να αρχίσουμε. Και τη περασμένη φορά την εκοιταξες καλά.

St; Χαχαχα

T; Το μάθημα μας σήμερα έχει να κάνει με μια πινέζα. Μπορείς να μου πεις καταρχάς τι είναι η πινέζα? Και πως τη χρησιμοποιούμε τη πινέζα? Αν σου δείξω τρια πραγματάκια ξέρεις να μου πεις τι εν η πινέζα? Τούτο?

St; Ναι

T; Ναι τούτο το πράμα πράβο. Για ποιο πράμα χρησιμοποιούμε τη πινέζα? Για να σε τρυπώ όταν βλέπεις αλλού

St; Για να καρφιτσώνουμε ψηλά τα πράματα.

T; Εφαντάστικες να έλεγες ναι τρυπάς με? Χαχαχα ναι για να καρφιτσώνουμε ψηλά τα πράγματα. Αλλο? Σε τι χρησιμοποιούμε τι πινέζα?

St; Μπορούμε να τη βάλουμε στο πινακα.

T; Μπαινει στο πινακα? Οχι εν μπαινει.

St; Για τις κόλλες στη πινακιδα.

T; Ωραία. Γενικά τις χρησιμοποιούμε για να τοποθετούμε πράγματα, να καρφιτσώνουμε πάνω στη πινακίδα. Ωραία. Δεν μου έρχεται μια άλλη χρηση της πινέζας. Να δούμε μεσα στο παραμύθι μας, αυτή η πινέζα τι έχει κάνει και που έχει πάει. Είσαι έτοιμος? Λοιπόν εμεις θα μιλήσουμε σήμερα γιάυτή τη πινέζα. Το όνομα της?

St; Μαίρη.

T; Μαίρη τη λένε. Και όχι μόνο έχει όνομα έχει και χρώμα! Είναι κίτρινη. Μαίρη η πινέζα και είναι μια κιτρινούλα πινέζα. Κυριε λέησον θα πει κάποιος έχει και παραμύθι για τις πινέζες? Και όμως έχει. Λοιπόν έτοιμοι? Βάζουμε τη Μαίρη τη πινέζα κάτω και ξεκινούμε.

(narrating and enacting - Dr. uniform, holding notepad, pulling the pin and dropping it on floor).
Body language – voice changing according to feelings – panic, stress, sadness, happiness, pain
Mats on floor with pictures for the story sequence.

T; Λοιπόν θέλεις να γίνεις πινέζα και να μας πεις όλη την ιστορία της από την αρχή, απο που ξεκίνησε, τι έγινε και κατέληξε στα παπούτσια του γιατρού, που επήγε με το γιατρό, τι έγινε όταν εδωθήκαν τα παπούτσια στο κηπουρό, και πως εκατέληξε κιμέσα? Έτοιμος να γίνεις πινέζα?

(gave the student a head band with a yellow pin on it- to have on while narrating the story)

Θα μιλας στο πρώτο πρόσωπο, εσύ είσαι η πινέζα, ντάξει? Αρα θα λες την ιστορία σαννα εσύ την έζησες. Μια φορά και ένα καιρό ή που λέτε εγώ ξεκίνησα... ωραία είσαι έτοιμος?τρια, δυο, ενα.

St; Εγώ ήμουν η πινέζα, είχα τον κυριο γιώργο που με εκόλλαν συνέχεια για τις κόλλες του, για τη δουλειά του που είχε ραντεβού, και σε μια φάση με τράβησε αποτομα και έπεσα χαμέ και ύστερα με πάτησε κάποιος, κατω απο το παπούτσι του και ύστερα επερπάταν, πηγαινε και ψώνιζε με τη πινέζα που ήταν κάτω, ύστερα πήγε μαζί με το πλοιο με τη πινέζα, ύστερα πήγε μαζί στο αεροπλάνο και εκοιμήθηκε και έβαλε το πόδι του πάνω και έβλεπε όλο το κόσμο, ύστερα τα παπούτσια τα έδωσε σε ενα κηπουρο και ο κηπουρός τα φορισε και ύστερα ο κηπουρός περπάτησε έβγαινε κατέβαινε τα σκαλιά, ύστερα ο κηπουρός πήγε και σκάλισε και έπεσε να ξεκουραστεί και ο κηπουρός ξύπνησε και έπιασε το ποδήλατο του και έκανε βόλτα με το ποδήλατου του και έλιωσε η σόλα απο κάτω και ένιωσε ο κηπουρός ότι κάτι τον τσιμπάει και είδε ότι είχε απο κάτω μια βίδα, μια πινέζα και σκεφτηκε τη πινέζα να τη βάλει με τις άλλες βιδες.

T; Ενα χειροκρότημα! Μπράβο. Καταρχάς την είπες όλη και θέλω να πω οτι θα την πουμε ξανα και θέλω να βάλουμε μέσα συναισθήματα και πως ενιωσε και ωχ και λοιπά. Σκέψου εγώ θα είμαι η βίδα και θα μου λες την ιστορία σαννα παίζουμε θέατρο. Δηλαδή σαν να νιώθει ήρωας σαν να νιώθει οτι όλα τα φώτα είναι πάνω του, γιατι στην τελευταία εικόνα, όλες οι βίδες, τα κατσαβίδια κτλ μαζεύτηκαν γύρω από την πινέζα, γιατί τούτοι που να κυκλοφορήσουν, φανταστήκατε να μπει ένα κατσαβίδι κάτω απο το παπούτσι, φανταστηκατε να έμπαινε μια βίδα μεγάλη κάτω από το παπούτσι? Ενώ την πινέζα δεν την ένιωσε κανένας στην αρχή και ταξίδεψε παντού ενώ αυτοί οι καημένοι ήταν όλη μέρα μέσα στην εργαλειοθήκη και γι'αυτό μόλις είδαν κάποιο σαννα έρχεται από την Αυστραλία, πως κάνουμε όταν έρχεται ένας συγγενής μας από την Αυστραλία και όλοι Κυπραίοι μαζευόμαστε δίπλα του και του λέμε Πες μας Πες μας εν ωραία κικάτω στα ξένα? Έτσι φάση. Λοιπόν lets go. Είσαι έτοιμος? Λοιπόν. Ουάου γεία σου πινέζα! Είμαι σίγουρη ότι ξέρεις πάρα πολλα πράγματα, εγώ δεν έχω φύγει ποτέ από την εργαλειοθήκη, μπορείς να μου πεις την ιστορία σου?

St; Ήμουν στο πάνω στο.... στη πινακίδα, μετά...

T; *(sounds of falling asleep)*

St; Μετά αποκοιμήθηκε....

Τ; Ρε εγώ αποκοιμήθηκα η βίδα έτσι που μου το λέεις!! Θέλω ενθουσιασμό!! Σας έτυχε ποτέ να είσαστε μπροστά απο την τηλεόραση και μερικές φορές να είναι τόσο ενδιαφέρουσα και να βλέπετε έτσι και να μην ακούτε τι λέει η μάμα σας ο παπάς σας απο πίσω αλλά σας έτυχε να κάτσετε μαζί με τους γονείς σας να βλέπετε και έσεις εκείνο που βλέπουν αλλα να βαρεθείτε και να φύγετε? Γιαυτό χρειάζεται και όταν μιλάμε, να είναι όπως παίζεις θέατρο! Λοιπόν μια κίτρινη πινέζα στην εργαλειοθήκη μας! Γεια σου!! Μπορείς να μας πεις την ιστορία σου? Εγώ δεν έχω φύγει ποτέ από την εργαλειοθήκη!!

St; Ήμουν... ο κύριος Γιωργος.... ήμουν η πινέζα και με είχαν στο τοίχο και με χρησιμοποιούσαν για να βάζουν τα ραντεβού του κ.Γιώργου και μια φόρα ύστερα από λίγο ήθελε να δει άλλη σημείωση για να δει που να πάει και το τράβηξε γρήγορα...

Τ; Καημενούλα μου πρέπει να φοβήθηκες.

St; Φοβήθηκα, έπεσα κάτω και ήθελα να πάω πίσω γιατί δεν μου άρεσε κάτω και..
Τ; Και τι εγίνε μετα?

St; Ύστερα εγώ η πινέζα βρέθηκα κάτω στο πάτωμα και κάποιος με πάτησε και ύστερα ταξίδεψαν στο αεροπλάνο, στο πλοιο, επηγέναν στα σκαλια πάνω και κάτω και ύστερα..
Τ; Έχω μια απορία, μου λέεις κάποιος με πάτησε. Ποιος σε πάτησε?

St; Ο γιατρός σε πάτησε και ο γιατρος έδωσε στο κηπουρο τα παπούτσια του που ηταν πάνω η πινεζα και μετά που άλλαξαν χέρια εκατάληξε η πινεζα μας...

Τ; Μα πριν να παν στα εργαλεία, την είδε ξαφνικα ο κηπουρός πάνω στα παπούτσια του ή κάτι άλλο έγινε πρώτα? Να βοηθήσω και εγώ να σου το φέρω αυτό το κομμάτι εδω πέρα. Μα είδες έχεις φωτογραφίες που βρισκόσουν παντού! Και που πήγες τοτε?

St; Πήγε με το ποδήλατο του γυρούς ...

Τ; Ανεβηκες σε ποδήλατο?!?!

St; Ναι κυρια βίδα.

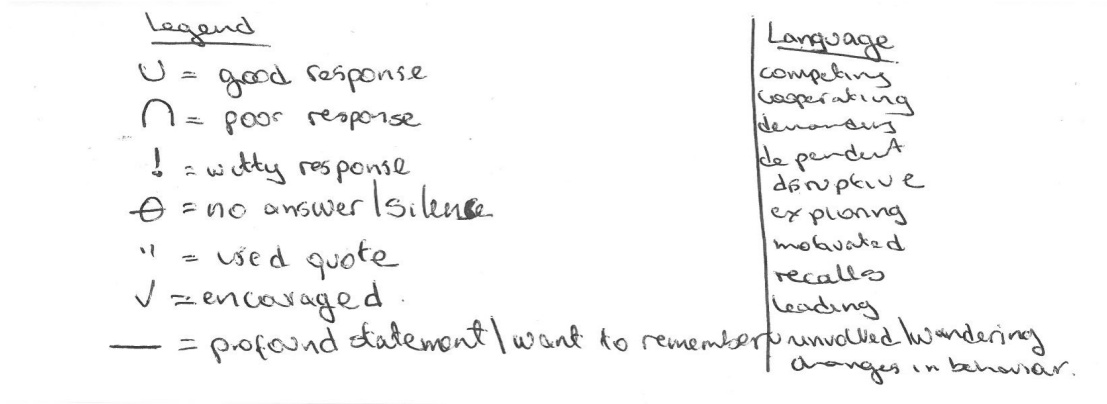
Τ; μην με λες κυρια θα είμαστε πολλη καιρό εδω μέσα.

St; Ναι και η σόλα του κηπουρού έλιωσε και την εβγαλε την καημένη τη βίδα, την πινέζα και με έβαλε μέσα στα εργαλεία του.

Τ; Καλά μην κλαις θα περάσουμε καλά! Ειδικά που ξέρεις τόσα πολλά! Μπραβο μπραβο για το συναίσθημα! Είναι πολυ σημαντικό να βάζουμε συναίσθημα και να το κάνουμε πιο αληθινό! Τελεια! Λοιπόν! Νομίζω ήμασταν πάρα πολυ καλοι!

Και πιο καλοι από την περασμένη φορά! Πραγματικά είδαμε μεγάλη διαφορά.! Μπράβο! Τώρα θέλω να μου κάνεις μια ζωγραφιά για το τι έγινε μετά που πήγε στην εργαλειοθήκη για το που πήγε και στην Τρίτη περίοδο να πουμε την ιστορια της πινεζας για το που κατάληξε η πινεζά, μπορεί να κατάληξε σε άλλη χώρα, μπορούμε να την χρησιμοποιήσουμε και για άλλα πράγματα την πινέζα... άρα κανε μου μια ζωγραφια για το μετά και να την πούμε την ιστορία μας ξανα για το που νομίζουμε κατέληξε η πινέζα. Πάντως μπράβο! Είδα μεγάλη διαφορά από την προηγούμενη φορά. Μπραβο. Τέλεια.

Appendix 9 – Legend used during observations



Appendix 10 – Example of diary entry and its analysis

Εφαρμόζοντας την τεχνική των νοητικών χαρτών για την επεξεργασία ενός κειμένου, αρχικά ο μαθητής δυσκολεύτηκε ιδιαίτερα να κατανοήσει τον τρόπο με τον οποίο έπρεπε να εργαστεί. Ο χάρτης και οι πληροφορίες που ζητούσε δεν του έλεγαν κάτι. Πιθανόν να μην είχε ξαναεργαστεί με το συγκεκριμένο εργαλείο και γι' αυτό να του ήταν τόσο δύσκολο να το επεξεργαστεί. Μια άλλη σκέψη που έκανα ήταν ότι ίσως ο δικός μου τρόπος αντίληψης και ο τρόπος που κατασκεύασα τους χάρτες να ήταν πολύ αφαιρετικός και γι' αυτό να δυσκολεύτηκε και να χρειαζόταν συνεχή καθοδήγηση.

Στη δεύτερη εφαρμογή του εργαλείου είχα προσπαθήσει να δημιουργήσω πιο ξεκάθαρους χάρτες που να ζητούν πιο συγκεκριμένες πληροφορίες και να είναι καλύτερα δομημένοι. Πρόσεξα ότι τη δεύτερη φορά ο μαθητής φαινόταν να διαχειρίζεται το εργαλείο πιο άνετα, παρόλο που και πάλι χρειαζόταν κάποια καθοδήγηση. Σε γενικές γραμμές υπήρξε μια πρόοδος, αλλά δεν μπορώ να είμαι σίγουρη αν η πρόοδος αυτή οφείλεται στην εξοικείωση του μαθητή με το εργαλείο, στο κείμενο που ήταν διαφορετικό και ίσως πιο κατανοητό και ενδιαφέρον για το μαθητή, ή στη βελτιωμένη μορφή των χαρτών που έφτιαξα τη δεύτερη φορά.

HU: Phd
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Edited by:Super
Date/Time: 2016-05-09 20:15:17

P18: # [redacted] All Interviews.docx - 18:1 [Αρχικά ο μαθητής δυσκολεύτηκε ..] (11:11) (Super)
Codes: ["Negative" Perceptions/Comments of GOs - Need for training in its use]
No memos

αρχικά ο μαθητής δυσκολευτηκε ιδιαίτερα να κατανοήσει τον τροπο με τον οποίο έπρεπε να εργαστεί. Ο χάρτης και οι πληροφορίες που ζητούσε δεν του έλεγαν κάτι. Πιθανόν να μην είχε ξαναεργαστεί με το συγκεκριμένο εργαλέιο και γι'αυτό να του ήταν τόσο δύσκολο να το επεξεργαστεί.

P18: # [redacted] All Interviews.docx - 18:2 [Μια άλλη σκέψη που έκανα..] (28:29) (Super)
Codes: [Challenge in Using GOs - Designing GOs] [Challenge in Using GOs - If how teacher thinks about it will work on students]
No memos

Μια άλλη σκέψη που έκανα ήταν ότι ίσωςσ ο δικός μου τρόπος αντίληψης και ο τρόπος που κατασκεύασα τους χάρτες να ήταν πολύ αφαιρετικός και γι'αυτό να δυσκολεύτηκε και να χρειαζόταν συνεχή καθοδήγηση.

P18: [redacted] - All Interviews.docx - 18:3 [Πρόσεξα ότι τη δεύτερη φορά ο μαθ..] (28:31) (Super)
Codes: [Positive Perceptions of GOs - Gradual familiarisation with design]
No memos

Πρόσεξα ότι τη δεύτερη φορά ο μαθητής φαινόταν να διαχειρίζεται το εργαλείο πιο άνετα, παρόλο που και πάλι χρειαζόταν κάποια καθοδήγηση.

P18: [redacted] - All Interviews.docx - 18:4 [Σε γενικές γραμμές υπήρξε μια..] (34:40) (Super)
Codes: [Mode of Use - Ready Made] [Reported Effectiveness of GOs - Motivation/ Confidence for students] [Reported Effectiveness of GOs - GO as Mediation/ Aid]
No memos

Σε γενικές γραμμές υπήρξε μια πρόοδος, αλλά δεν μπορώ να είμαι σίγουρη αν η πρόοδος αυτή οφείλεται στην εξοικείωση του μαθητή με το εργαλείο, στο κειμενο που ήταν διαφορετικό και ίσως πιο κατανοητό και ενδιαφέρον για τον μαθητή, ή στη βελτιωμένη μορφή των χαρτών που έφτιαξα τη δεύτερη φορά.

Appendix 11 – Two page sample of transcribed interviews for each participant

Artemis-Second Interview

P 6: # [redacted] - Interviews.docx - 6:72 [Δηλαδή εφόσον βλέπω ότι τα παι..] (184:184) (Super)
Codes: [Teachers - Attitudes - Willingness to Try Anything that Might Help] [Teachers - Motivation/ Confidence - Student Reaction - Body Language] [Teachers - Motivation/Confidence to Experiment when it is working]

No memos

Δηλαδή εφόσον βλέπω ότι τα παιδιά ανταποκρίνονται καλύτερα ή είναι πιο χαρούμενα όταν κάνουμε δραστηριοτήτα τέτοιου τύπου ε φυσικά θα το χρησιμοποιήσω γιατί είναι υπέρ μου γιατί μπορώ να χτίσω παραπάνω πράγματα.

P 6: # [redacted] - Interviews.docx - 6:73 [Γιατί ας πούμε μπορεί ένα τέτο..] (185:185) (Super)
Codes: [Reported Effectiveness of GOs - GO as Mediation/ Aid] [Reported Effectiveness of GOs - GO as prerequisite to continue]
No memos

Γιατί ας πούμε μπορεί ένα τέτοιο, μια τέτοια δραστηριότητα δομημένη με αυτό το τρόπο μπορεί να είναι και το τυράκι για να τους πάω μετά σε αυτό που θέλω, γιατί τους αρέσει και είναι εύκολο για αυτους παρά να χαθούν σε μια βαρετή δραστηριότητα.

P 6: # [redacted] - Interviews.docx - 6:74 [Γιατί δεν την βρίσκουν βαρετή...] (186:186) (Super)
Codes: [Reported Effectiveness of GOs - Not Boring]
No memos

Γιατί δεν την βρίσκουν βαρετή.

P 6: # [redacted] - Interviews.docx - 6:75 [Οπότε και μόνο που το θεωρούν ..] (187:187) (Super)
Codes: [Reported Effectiveness of GOs - Not Boring] [Teachers - Motivation/ Confidence - Student Reaction - Body Language]
No memos

Οπότε και μόνο που το θεωρούν ελκυστικό είναι ενα συν για μένα οταν θέλω να τους προχωρήσω σε κάτι πιο παραδοσιακό, πιο παραδοσιακή διδασκαλία.

P 6: # [redacted] Interviews.docx - 6:76 [Αλλά και πάλι εφόσον, αυτό που..] (188:189) (Super)
Codes: [Teachers - Attitudes- Role of Sp. Ed. Teachers] [Teachers - Attitudes - their Obligation as teachers] [Teachers - Attitudes - Willingness to Try Anything that Might Help]
No memos

Αλλά και πάλι εφόσον, αυτό που είπα πρίν εφόσον με την παραδοσιακή διδασκαλία δεν δούλεψε και απότυχα σε εισαγωγικά πάντα, άρα ψάχνεις άλλες μεθόδους για να τους δελεάσεις και να τους κρατήσεις το ενδιαφέρον.

Αυτό.

P 6: # [redacted] - Interviews.docx - 6:77 [Ναι οσο περισσότερο το δουλεύε..] (193:193) (Super)
Codes: [Positive Perceptions of GOs - Gradual familiarisation with design] [Teachers - Motivation/ Confidence - Student Reaction - Body Language]
No memos

Ναι οσο περισσότερο το δουλεύεις τόσο περισσότερο εξοικειώνεσαι με αυτό και όσο βλεπεις ότι ανταποκρίνονται τα παιδιά και το δουλεύεις το πράγμα.

P 6: # [redacted] - Interviews.docx - 6:78 [Λες θα το χρησιμοποιήσω και κά..] (194:195) (Super)
Codes: [Teachers - Attitudes - Willingness to Try Anything that Might Help] [Teachers - Motivation/Confidence to Experiment when it is working]
No memos

Λες θα το χρησιμοποιήσω και κάπου αλλού, όχι μόνο ελληνικά η σε κείμενο.

σίγουρα, πολλές φορές μπορεί να πεις μα να ακολουθήσω την περπατημένη, το παραδοσιακό, γιατί να πηγαίνω αλλού ας πούμε, να πάω στα σίγουρα.

P 6: #[redacted] - Interviews.docx - 6:79 [Στο σίγουρο για σένα! Σε αυτό ..] (196:198) (Super)
Codes: [Teachers - Attitudes- Role of Sp. Ed. Teachers] [Teachers - Attitudes - self-critique] [Teachers - Attitudes - their Obligation as teachers] [Teachers - Attitudes - Willingness to Try Anything that Might Help]
No memos

Στο σίγουρο για σένα!

Σε αυτό που είναι ασφαλές για σένα.

Αλλά αυτό που είναι ασφαλές για σένα είναι τόσο βαρετό.

P 6: #[redacted] - Interviews.docx - 6:80 [Οπότε.. εξαρτάται τι θες την ε..] (199:199) (Super)
Codes: [Teachers - Attitudes- Role of Sp. Ed. Teachers]
No memos

Οπότε.. εξαρτάται τι θες την ευκολία τη δική σου ή να κερδίσεις το μαθητή.

P 6: #[redacted] - Interviews.docx - 6:81 [Που και πάλι δεν είναι τόσο δύ..] (200:201) (Super)
Codes: [Positive Perceptions of GOs - Gradual familiarisation with design]
No memos

Που και πάλι δεν είναι τόσο δύσκολο πια να οργανώσεις ή να το φτιάξεις.

Σου λεω αμαν εξοικειωθείς με αυτό, απλά κάνεις όπως κάνεις την ώρα σου, αφιερώνεις χρόνο στο σπίτι για να φτιάξεις ένα φυλλάδιο, είνα ακριβώς το ίδιο πράγμα.

P 6: #[redacted] - Interviews.docx - 6:82 ['Οπως κάνεις ενα φυλλάδιο. Ούτω..] (202:204) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time]
No memos

'Οπως κάνεις ενα φυλλάδιο.

Ούτως η άλλως αφιερώνεις χρόνο γιατί εμείς δεν έχουμε έτοιμα φυλλάδια.

Πολύ σπάνια έχεις έτοιμο φυλλάδιο.

P 6: #[redacted] - Interviews.docx - 6:83 [Κάθε παιδί έχει διαφορετικές α..] (205:206) (Super)
Codes: [Teachers - Attitudes - their Obligation as teachers] [Teachers - Attitudes - Willingness to Try Anything that Might Help]
No memos

Κάθε παιδί έχει διαφορετικές ανάγκες άρα αναγκαστικά κάνεις καινούργια.

Για πιο λόγο να μην το κάνεις ελκυστικό.

Hestia - First Interview

P16: # [redacted] - All Interviews.docx - 16:18 [Σημαινει ότι εν εχω ώρα για να..] (51:52) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time]
No memos

Σημαινει ότι εν εχω ώρα για να το κάνω δαμε. Επειδή πάω σε τέσσερα σχολεία την ώρα του κενού.. τωρά έχω μάθημα κανονικα με άλλο μωρό αλλά ντάξει σημερα εν θα την πιάσω. Μετά φεύκω αμέσως πάω σε άλλο σχολείο.

Εν έχω την ώρα.

P16: # [redacted] - All Interviews.docx - 16:19 [Δεν ξέρω αν μπορούμε να το πάρ..] (53:53) (Super)
Codes: [Other Comments - Software / PC provision]
No memos

Δεν ξέρω αν μπορούμε να το πάρουμε σπιτι μας τούτο το πρόγραμμα.

P16: # [redacted] - All Interviews.docx - 16:20 [Ασε να ρωτήσω τη διευθύντρια α..] (57:57) (Super)
Codes: [Other Comments - Software / PC provision]
No memos

Ασε να ρωτήσω τη διευθύντρια αν γίνεται να σου πω την αλήθεια γιατι ντάξει θα είναι πιο εύκολο να το πάρω γιατί που τα κενά όλα που κάνω εν εχω κανένα κενο βασικα!

P16: # [redacted] All Interviews.docx - 16:21 [Γιατί πρέπει στο κενό μου να φ..] (58:59) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time]
No memos

Γιατί πρέπει στο κενό μου να φροντίσω να πάω στο άλλο σχολειο!

Και να πεις εν κοντά τα σχολεία ενα δεκάλεπτο και να κάτσω να το κάνω γιατί ενεν δύσκολο... εεε εν ο χρόνος.

P16: # [redacted] - All Interviews.docx - 16:22 [Αλλα ντάξει εν εύκολο πράμα. Ε..] (62:63) (Super)
Codes: ["Negative" Perceptions/Comments of GOs - Need for training in its use] [Challenge in Using GOs - Designing GOs]
No memos

Αλλα ντάξει εν εύκολο πράμα.

Ενε δύσκολο και νομίζω αμαν το δουλέψω ακόμα λίο εναν και πιο εύκολο και για μένα. Ντάξει ήταν στην αρχή να δω πως μπαίνουν τα κουτάκια, τα τοξάκια αλλά όχι ντάξει εν εύκολο ενεν δύσκολο.

P16: # [redacted] - All Interviews.docx - 16:23 [Σιγουρα όμως εν ξέρω κατα πόσο..] (69:70) (Super)
Codes: [Mode of Use - Alternative Uses]
No memos

Σιγουρα όμως εν ξέρω κατα πόσο οι δασκάλοι εν πρόθυμοι να κάθονται να κάνουν ετσι πράμα για ολοκληρη τη τάξη.

Σιγουρα θα μπορούσε να.. στην ιστορία, στη γεογραφία, στα αγγλικά.

P16: # [redacted] - All Interviews.docx - 16:24 [Σίγουρα θα μπορούσε να βοηθήσε..] (71:71) (Super)
Codes: [Mode of Use - Alternative Uses]
No memos

Σίγουρα θα μπορούσε να βοηθήσει σε άλλα μαθήματα. Τωρά δεν ξέρω κατα πόσο εν....

P16: # [redacted] - All Interviews.docx - 16:25 [Κοίταξε να σου πω την αλήθεια ..] (79:80) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time] [Challenge in Using GOs - Designing GOs]
No memos

Κοίταξε να σου πω την αλήθεια εν μια έχτρα δουλειά.

Εν θα πω ότι «Α εν έτοιμο πράμα ενα το χρησιμοποιήσω».

P16: # [redacted] - All Interviews.docx - 16:26 [Εχω να βρω το κείμενο, και απο..] (81:82) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time] [Challenge in Using GOs - Designing GOs]
No memos

Εχω να βρω το κείμενο, και απο το απλοποιημένο που ετοιμάζω, όπως είδες τωρα εν πολλά απλοποιημένο γιατί εν θα της εδιουν τούτο το κείμενο θα το εδυσκόλευα λίγο παραπάνω..

σημαίνει ήταν να κάτσω να το δουλέψω τούτο, ήταν να αλλάξω μερικές ερωτήσεις γιατί εν λίο δύσκολα για μερικά μωρά.

P16: # [redacted] - All Interviews.docx - 16:27 [Σημαίνει ήταν να κάνω έχτρα δο..] (83:85) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time] [Challenge in Using GOs - Designing GOs]
No memos

Σημαίνει ήταν να κάνω έχτρα δουλειά, έχτρα επιβάρυνση για μένα... που ... αν είχα τα κενά μου και υποτίθεται την ώρα του κενού κάθεσαι και δουλεύεις τα πράματα για την τάξη σου ηταν να τα έκανα εκεί δεν θα με ένοιαζε αλλά που την στιγμή που έν τα έχω και εγώ πρέπει να κάθουμε σπίτι μου να τα κάνω το απόγευμα, σημαίνει πρέπει να τρώω όλο μου το απόγευμα κάθε μέρα ..

εε ντάξει ενεν και τόσο εύκολο.

Το μόνο τούτο.

P16: # [redacted] - All Interviews.docx - 16:28 [Ναι ο χρόνος. Βασικά ο χρόνος...] (89:91) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time]
No memos

Ναι ο χρόνος.

Βασικά ο χρόνος.

Αν είχα το χρόνο δεν θα με πείραζε.

Athena – Third Interview

P17: # - All Interviews.docx - 17:55 [Επίσης πέρα που το... λαλούμε ..] (216:216) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time] [Other Comments - Recommendation to Others]
No memos

Επίσης πέρα που το... λαλούμε την έλλειψη χρόνου και περιπέζουν μας γιατί σιγά αλλά με τα νέα αναλυτικά προγράμματα οι δασκάλοι της τάξης εν πολλά δύσκολο να έβρουν ώρα να κάνουν το έξτρα.

P17: # - All Interviews.docx - 17:56 [Και επειδή προσπαθούν να κάνου..] (217:217) (Super)
Codes: [Challenge in Using GOs - Additional/ Extra Effort/Time] [Other Comments - Recommendation to Others]
No memos

Και επειδή προσπαθούν να κάνουν το έξτρα σε άλλες δραστηριότητες για να έχει ποικιλομορφία γενικότερα στα μαθήματα νομίζω εν πιο δύσκολο να ασχοληθούν σε ένα συγκεκριμένο μάθημα να κάνουν κάτι έξτρα τέτοιας φύσης.

P17: # - All Interviews.docx - 17:57 [Ναι καλό. Γιατί εν ωραία. Αρεσ..] (221:222) (Super)
Codes: [Other Comments - Recommendation to Others] [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy]
No memos

Ναι καλό. Γιατί εν ωραία. Αρεσε μου.

Και εξυπηρετα πολλά πράματα μαζί.

P17: # - All Interviews.docx - 17:58 [Εννοώ το να καμνεις το μωρό να..] (223:223) (Super)
Codes: [Reported Effectiveness of GOs - GO as Mediation/ Aid] [Reported Effectivenss of GOs - Reading Comprehension]
No memos

Εννοώ το να καμνεις το μωρό να επεξεργαστεί κάποιες πληροφορίες διαφορετικά, κάμνουμε την αξιολόγηση που φκένει πάρα πολλά αβίαστα στην κατανόηση, τι εκατάλαβε και τι όχι και προχωρά...

P17: # - All Interviews.docx - 17:59 [εννοώ ξεφεύγει και που το γράψ..] (224:224) (Super)
Codes: [Reported Effectiveness of GOs - GO as Future Acquired Strategy] [Reported Effectiveness of GOs - GO as Mediation/ Aid] [Reported Effectiveness of GOs - Motivation/ Confidence for students]
No memos

εννοώ ξεφεύγει και που το γράψε γράψε.... γράφει ναι αλλά ενεν κίνη η δομημένη απάντηση που να βαρεθεί να κουραστεί, μπορεί να πιάσει τις πληροφορίες που θέλει, να έβρει τις πληροφορίες που θέλει μεστο κείμενο έτσι καθοδηγας τον να μάθει να επεξεργάζεται το κείμενο, γιατί πιο μετά ενα χρειάζεται να πιάνει μόνος του σημειώσεις. Άρα για τούτους τους λόγους.

P17: # - All Interviews.docx - 17:60 [Επίσης δια σου την ευκαιρία να..] (225:225) (Super)

Codes: [Reported Effectiveness of GOs - Web of knowledge -Keep adding] [Teachers - Attitudes - Importance of linking knowledge with real life examples]
No memos

Επίσης δια σου την ευκαιρία να πιασεις ενα θέμα και να κανεις ενα χάρτη μαζί με το μαθητή για τις γνώσεις του πάνω στο θέμα και μετά σιγά σιγά να κτίζεις πάνω σε κίνο το χάρτη και να προσθέτουμε και άλλες γνώσεις όσο περνά ο καιρός. Για παράδειγμα για τις πετρελαιοκηλίδες. Αν ο μαθητής ξέρει 5 πράματα για κίνο – τα βάζουμε πάνω στο χάρτη, και μετα από ένα κείμενο, δυο/τρεις ασκήσεις, ίσως από άλλα μαθήματα η προσωπική του γνώση για το θέμα επεκτείνεται και τα βάζουμε στο χάρτη σιγά σιγά και στο μαθητή μένει τούτη η εικόνα-το σχήμα με ούλλη του τη γνώση για ένα πράμα μαζι συνδεδεμένη λογικά. Και τουτο εν πολλά σημαντικό.

P17: # [redacted]- All Interviews.docx - 17:61 [Εν νομίζω ότι μου δια κάτι ουά..] (229:230) (Super)
Codes: [Teachers - Attitudes - Importance of Autonomy] [Teachers - Attitudes - Willingness to Try Anything that Might Help] [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy]
No memos

Εν νομίζω ότι μου δια κάτι ουάου...

απλά εν κίνο που σπου είπα βοηθά να ξεφεύγω και για ποικιλία. Όπως ούλλες οι μεθόδοι....

P17: # [redacted]- All Interviews.docx - 17:62 [Μ; Θα ήθελα, ο σκοπός μου ήταν..] (233:235) (Super)
Codes: [Teachers - Attitudes - Willingness to Try Anything that Might Help] [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy] [Teachers - Motivation/Confidence to Experiment when it is working]
No memos

Μ; Θα ήθελα, ο σκοπός μου ήταν να έκαμνα κάτι άλλο, ένα άλλο σχήμα απλά είχα ξεχάσει. Και τούτο το μοντέλο που το έχω χρησιμοποιήσει.

Θα ήθελα σε άλλη φάση να χρησιμοποιήσω και άλλα ήδη, την αράχνη για παράδειγμα... Πάντως υπάρχει μέλλον!!!!

P17: # [redacted]- All Interviews.docx - 17:63 [Και νομίζω ενεν εντελώς, εν ξέ..] (236:237) (Super)
Codes: [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy]
No memos

Και νομίζω ενεν εντελώς, εν ξέρω τι σου έδειξε η έρευνα σου, αλλά ενεν κάτι άγνωστο, τουλάχιστο σε θεωρητικό επίπεδο ούλλοι ξέρουν το.

Πρακτικά μπορέι να μεν ξέρουν πως εφαρμόζεται αλλά γενικά εν κάτι που μπορεί να γίνει και νομίζω σαν ιδεολογία χρησιμοποιούντο πάρα πολλά.

P17: # [redacted]- All Interviews.docx - 17:64 [Ύστερα που εμιλήσαμε, και εμπλ..] (238:240) (Super)
Codes: [Mode of Use - Alternative Uses]
No memos

Ύστερα που εμιλήσαμε, και εμπλέκτικά με τούτο το πράμα και άρχισα να

Hera - Third Interview

P18: #[redacted] - All Interviews.docx - 18:25 [Σε σύγκριση με τις άλλες φορες..] (129:130) (Super)
Codes: [Positive Perceptions of GOs - Flexibility in Design according to student needs] [Positive Perceptions of GOs - Gradual familiarisation with design] [Reported Effectiveness of GOs - GO as Mediation/ Aid] [Reported Effectiveness of GOs - Motivation/ Confidence for students] [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy] [Teachers - Motivation/ Confidence - Student Reaction - Body Language] [Teachers - Motivation/Confidence to Experiment when it is working]
No memos

Σε σύγκριση με τις άλλες φορες που για κάποιο λόγο είχαν δυσκολευτεί..εεεμ εν ξέρω αν έπαιξε... ναι νομίζω παίζει ρόλο τούτο, ότι ήρταν σε επαφή ξανά και εν ήταν κάτι καινούργιο ενώ την πρώτη φορά είδαμε ότι ήταν κάτι ξαφνικό, πιστεύω ότι είχα κάμει το λάθος σε εισαγωγικά ότι καποια παιδιά μου εδιαβάζαν και κάποια παιδιά μου εν διαβάζαν και εγώ είχα χρησιμοποιήσει μόνο το γραπτό το λόγο γιαυτό μετά είχα χρησιμοποιήσει σχέδια, σχεδιαγράμματα μαζί με φιγούρες που το βρήκαν πιο εύκολο ε στη Τρίτη προσπάθεια, τέταρτη γιατί είχαμε κάνει ακόμα ένα μάθημα, εν θυμούμαι πιο, στη τέταρτη ας πούμε προσπάθεια βλέπω ότι έχουν εξοικειωθεί, και εν τούτο που σου είχα πει, επειδή ήταν εξοικειωμένοι με άλλο τρόπο διδασκαλίας ήταν δύσκολο να ξεφύγουν όμως όσο πιο πολλά το κάνεις πρακτική ας πούμε στη τάξη πλέον βλέπεις ότι οι μαθητές είναι σε θέση να ακολουθησουν και άλλο τρόπο μάθησης, τώρα πάλι εν ξερω ίσως επειδή πάλι έκαμα συνδιασμό με θέατρο και βλέπω ότι μπορεί να λειτουργήσει και μαζί.

Σαν υποβοήθημα του θεατρικού παιχνιδιου που χρησιμοποιώ ως βάση.

P18: #[redacted] All Interviews.docx - 18:26 [Ε ο Γιώργος έκαμε μου εντύπωση..] (142:142) (Super)
Codes: [Reported Effectiveness of GOs - Motivation/ Confidence for students] [Reported Effectiveness of GOs - Retelling] [Teachers - Motivation/ Confidence - Student Reaction - Body Language] [Teachers - Motivation/ Confidence to Experiment when it is working]
No memos

Ε ο Γιώργος έκαμε μου εντύπωση. Ο γιώργος ναι έχει έτσι με την μνήμη του κάποιες δυσκολίες και έκαμε μου εντύπωση ότι εθυμήκε όλες τις πληροφορίες γιατί ακολουθούσε την σειρά των εικόνων.

P18: #[redacted] - All Interviews.docx - 18:27 [; Ναι ότι εκοιμήθηκε και έκαμε..] (146:147) (Super)
Codes: [Reported Effectiveness of GOs - Categorisation of info] [Reported Effectiveness of GOs - Motivation/ Confidence for students] [Reported Effectiveness of GOs - Organised Knowledge - for teacher and student] [Teachers - Motivation/ Confidence - Student Reaction - Body Language] [Teachers - Motivation/Confidence to Experiment when it is working]
No memos

; Ναι ότι εκοιμήθηκε και έκαμε μου εντύπωση εμένα γιατί επίε ο νους μου στο κηπουρο που εκοιμήθηκε και είπα όπα εσύγχησεν τα.

Και πραγματικά είπε όλες τις πληροφορίες και γιαυτό έδωσε μου την θετική εικόνα ότι η ακολουθία κυρίως για τα παιδιά που έχουν δυσκολία ανάκλησης πληροφοριών εε βοηθά πάρα πολλά.

P18: # [redacted] - All Interviews.docx - 18:28 [Να σου πω και με τη φάση σου, ..] (151:152) (Super)
Codes: [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy]
No memos

Να σου πω και με τη φάση σου, έδωσες μου έτσι ένα κίνητρο να ασχοληθώ με κάτι άλλο που δεν μου ήταν οικείο.

Το είχα ακουστά αλλά δεν το είχα χρησιμοποιήσει, όταν είδα την πρώτη φορά ότι δεν επέτυχε είπα να μείνω στο δικό μου γιατί εν επέτυχε.

P18: # [redacted] - All Interviews.docx - 18:29 [Όταν όμως μετά εκαμα αυτοκριτι..] (153:153) (Super)
Codes: [Reported Effectiveness of GOs - GO as Future Acquired Strategy] [Reported Effectiveness of GOs - GO as Mediation/ Aid] [Reported Effectiveness of GOs - Motivation/ Confidence for students] [Reported Effectiveness of GOs - Retelling] [Teachers - Attitudes - self-critique]
No memos

Όταν όμως μετά εκαμα αυτοκριτική και κατάλαβα γιατί απέτυχε και κατέληξα περίπου ότι άμαν το χρησιμοποιήσεις σωστά οτι.. και βλέποντας φυσικά και την τελευταία προσπάθεια εε τούτο εν το κίνητρο μου, δηλαδή αν είδα ότι εχρησίμευσε στο παιδί μου που είχε δυσκολία ανάκλησης και δυσκολία αφήγησης μιας ιστορίας τούτο εν το κίνητρο μου. Δηλαδή για το Γιώργο και για ένα άλλο παιδάκι μου που εχω υπόψη μου τωρά ειναι χρήσιμο και είναι μια άλλη μέθοδος που τον βοηθά, γιατι εν τον εβοήθησε τούτο που χρησιμοποιούμε μεχρι τώρα ασπουμε εε, στο να κάμει μια ολοκληρωμένη αφήγηση, εκαμε μια ολοκληρωμένη αφήγηση, αυτό μου κάνει εντύπωση. Δεν θα το έκαμνε αν εβλεπε τις εικονες έτσι, επειδή ακολουθούσε μια σειρά εβοήθησεν τον.

P18: # [redacted] - All Interviews.docx - 18:30 [Ε τούτο εν το κινητρο μου δηλα..] (154:154) (Super)
Codes: [Teachers - Attitudes - Willingness to Try Anything that Might Help] [Teachers - Attitudes -Project as a challangè to experiment - linked to autonomy]
No memos

Ε τούτο εν το κινητρο μου δηλαδή τούτο βοηθά κάποια παιδιά και εν καλό ας πουμε ότι βλέπεις μια άλλη όψη της μάθησης εε και μαθαίνεις και αλλα πράγματα.

P18: # [redacted] - All Interviews.docx - 18:31 [Εγω εχαρηκα δηλαδή όταν μου εί..] (155:155) (Super)
Codes: [Teachers - Attitudes - Willingness to Try Anything that Might Help] [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy]
No memos

Εγω εχαρηκα δηλαδή όταν μου είπες, και εγραψα το στο ατομικό μου δελτίο ότι ερχεται η Μαρια και κάνουμε τούτο το πράμα και ερώτησε με η διευθύντρια τι εν τούτο το πράγμα και εξήγησα της της και λεέι μου το ήξερες τούτο το πράγμα και λέω της το ήξερα γιατί εκαμαμε ενα σεμινάριο οι δάσκαλοι ότι πρέπει να το χρησιμοποιείτε τούτο το πράγμα αλλά εν το χρησιμοποιήσε κάνενας ποτέ και εν επέμεναν οι επιθεωρητές και όταν έπρεπε να διαβάσω τσίνα που εμίλησα με τη Μαρια και κατάλαβα τι ήταν είπα να το δοκιμάσω και έμαθα πράγματα. Έμαθα πολλά πράγματα.

Demetra - Third Interview

P14: # [redacted] All interviews.docx - 14:49 [αι θα είναι πολύ μεγάλη βοήθει..] (164:164) (Super)
Codes: [Other Comments - Recommendation to Others]
No memos

αι θα είναι πολύ μεγάλη βοήθεια γιατί εν τόση η πίεση όπως είπαμε και πριν που εν νομίζω να έχουν τον χρόνο εκτός και αν ειναι κάποιος τελείως ελεύθερος, εννοώ και στη ζωή του, εν τον ενδιαφέρει πολλά η δουλεία του και τις ελευθερες του ώρες ενα έρτει στο σπίτι και θα κάτσει να χαζεύει και να ψάχνει ιδέες.

P14: # [redacted] All interviews.docx - 14:50 [Αλλά τούτη η προώθηση του να δ..] (165:165) (Super)
Codes: [Other Comments - Recommendation to Others]
No memos

Αλλά τούτη η προώθηση του να δώσεις στον εκπαιδευτικό σχεδόν έτοιμες και απλές ιδέες που θα δει, μπορεί να διαβάσει δυο πράματα που τον ενδιαφέρει και θέλει και περισσότερα μπορεί να μελετήσει περισσοτερο, αλλά φτάνει να έρθει η ιδέα κοντά του αν δεν έχει χρόνο να την ψάξει.

P14: # [redacted] All interviews.docx - 14:51 [Που δεν νομίζω να έχει πολλούς..] (166:167) (Super)
Codes: [Other Comments - Recommendation to Others]
No memos

Που δεν νομίζω να έχει πολλούς που έχουν τον χρόνο να ψάξουν.

Γιαυτό αν έρθουν οι ιδέες κοντά τους, αν τους αρέσουν θα ψάξουν περισσότερο.

P14: # [redacted] All interviews.docx - 14:52 [Θα έλεγα για την συγκεκριμένη ..] (171:174) (Super)
Codes: [Other Comments - Recommendation to Others] [Teachers - Attitudes- Role of Sp. Ed. Teachers]
No memos

Θα έλεγα για την συγκεκριμένη μέθοδο, θα του έλεγα τι έκανα και θα του έστελνα το εμαιλ το οποίο μου έστειλες για το διαβάσει και εκείνος γιατί ο καθένας μπορεί να σχηματίσει διαφορετικές εντυπώσεις ή να καταλάβει με διαφορετικό τρόπο.

Αλλά εγώ θα έλεγα την δική μου εμπειρία που είχα και ότι εβοήθησε με και γιαυτό ούτως η άλλως θα έκανα το κόπο να το πώ πάρακατω.

Γιατί αν δεν το πίστευα εγώ δεν θα με ενδιέφερε να το αναφέρω πάρακάτω.

Αλλά κάτι που με ενδιαφέρει αμέσως θα το έλεγα πάρακατω. Αν τον ενδιέφερε και τον άλλο φυσικά.

P14: # [redacted] All interviews.docx - 14:53 [Νομίζω κάνει για όλες τις περι..] (178:178) (Super)
Codes: [Mode of Use - Alternative Uses] [Positive Perceptions of GOs - Flexibility in Design according to student needs] [Reported Effectiveness of GOs - GO as Future Acquired Strategy] [Reported Effectiveness of GOs - GO as Mediation/ Aid] [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy]
No memos

Νομίζω κάνει για όλες τις περιπτώσεις η συγκεκριμένη μέθοδος που μου έδειξες, κυρίως για άτομα με προβλήματα κατανόησης η προβλήματα περισσότερο ανάγνωσης αλλα εγώ ένταξα του και μέσα στα δικά μου τα άτομα χρησιμοποιώντας τις εικόνες και λέω σου θα το έκανα και με αντικείμενα ακόμα γιατι η μια η μέθοδος που σου δίνει κάποιος εν τούτη η γενική ιδέα.

P14: # [redacted]All interviews.docx - 14:54 [Δια σου μια μέθοδο και χρησιμο..] (179:179) (Super)
Codes: [Positive Perceptions of GOs - Flexibility in Design according to student needs]
No memos

Δια σου μια μέθοδο και χρησιμοποιας την εσυ ανάλογα με τι έχεις μπροστά σου, τα άτομα που δουλεύεις.

P14: #[redacted]All interviews.docx - 14:55 [Γιατι μια ειδική παιδαγωγός δε..] (180:182) (Super)
Codes: [Teachers - Attitudes- Role of Sp. Ed. Teachers] [Teachers - Attitudes - Importance of Autonomy] [Teachers - Attitudes - their Obligation as teachers]
No memos

Γιατι μια ειδική παιδαγωγός δεν είναι κάτι μαγικό που θα σου δείξουν ένα φίλτρο, η ειδική παιδαγωγός είναι μια καλή δασκάλα που κάνει την ανάλυση, δηλαδη ένα πράμα μπορεί να το βρει με χίλιους τρόπους να το διδάξει γιαυτό μου έλεγε και η tutor μου «Μην περιμένεις κάτι μαγικό».

'Οτι θα έρθω να σου το δείξω εγώ.

Είναι να μάθεις πώς να αναλύεις εκείνο που θέλεις να διδάξεις και με πολλούς τρόπους να βρεις να το διδάξεις.

P14: #[redacted] All interviews.docx - 14:56 [Αρχικά ήταν στο μυαλό μου και ..] (190:191) (Super)
Codes: [Teachers - Attitudes - Importance of Autonomy] [Teachers - Attitudes -Project as a challange to experiment - linked to autonomy] [Teachers - Motivation/Confidence to Experiment when it is working]
No memos

Αρχικά ήταν στο μυαλό μου και το δουλευα το έτσι γιατί ηταν και ο τροπος που κάναμε τα essays προσωπικά όταν εσπουδάζαμε, δηλαδή πως ήταν να φτιάξουμε τη μελέτη μας στην αρχη.

Εεεμ εθύμιζε μου το mindstorm ο τροπος που το κάναμε και προσπάθησα μια-δυο φορές, είχα το στο μυαλό μου αλλά όταν μου το έδειξες και εδιάβασα, όταν βρήκα το χρόνο και διάβασα το, για μένα ήρταν μου τόσες πολλές ιδέες και οταν το δοκίμασα και είδα πόσο πετύχαινε ενθουσιάστηκα αφάνταστα.

P14: #[redacted]All interviews.docx - 14:57 [Οχι ηταν πάρα πολλά βοηθητικό ..] (195:195) (Super)
Codes: [Reported Effectiveness of GOs - For Teachers] [Reported Effectivenss of GOs - Reading Comprehension] [Teachers - Attitudes - Willingness to Try Anything that Might Help]
No memos

Οχι ηταν πάρα πολλά βοηθητικό για μένα και ανα πάσα στιγμή να έρτει άτομο που να μπορέσω να το δουλέψω για ανάγνωση και κατανόηση θα την χρησιμοποιήσω τούτη τη μέθοδο.

P14: #[redacted]All interviews.docx - 14:58 [Νιώθω ότι έχω πιο πλούσιο τρόπ..] (199:200) (Super)
Codes: [Reported Effectiveness of GOs - For Teachers]

Appendix 12 – List of initial core codes

Code-Filter: All

HU: Phd
File: [J:\#Maria#\#KINGS COLLEGE LONDON - PhD#\Data Collection\Phd.hpr7]
Edited by: Super
Date/Time: 2015-02-22 15:14:52

Type & effectiveness - Alternative Uses
Beliefs
Care about - Beyond Contractual Obligation
Challenge of Use - Additional Effort
Challenge of Use - Design
Challenge of Use - Time
Design of GO - Only Main Ideas
Effect - Categorisation of info
Type & Effectiveness - Collaborative design
Effect - For Teachers
Effect - GO as Future Acquired Strategy
Effect - GO as Mediation/ Aid
Effect - GO as prerequisite to continue
Effect - Not Boring
Effect - Not lost in long text
Effect - Organised Knowledge - for teacher and student
Effect - RC - Important Information
Type and Effectiveness - Ready Made
Effect - Retelling
Measure of Effectiveness - Student Reaction - Body Language
Effect - Use of Colours
Flexibility in Design according to student needs
Gradual familiarisation with design
Importance of Autonomy
Importance of Main Ideas
Importance of Visual Representation
Knowledge Definition
Need for training in its use
Project as a challange to experiment - linked to autonomy
RC Definition
Recommendation to Others
Role of Sp. Ed. Teachers
Teacher - self-critique
Software / PC provision
Student as Active Learner with Choices
Suggestions for Better Results
Teacher - Confidence from Student Reaction
Teacher - Confidence to Experiment when it is working
Teacher - Willingness to Try Anything that Might Help

Appendix 13 – Final list of core codes

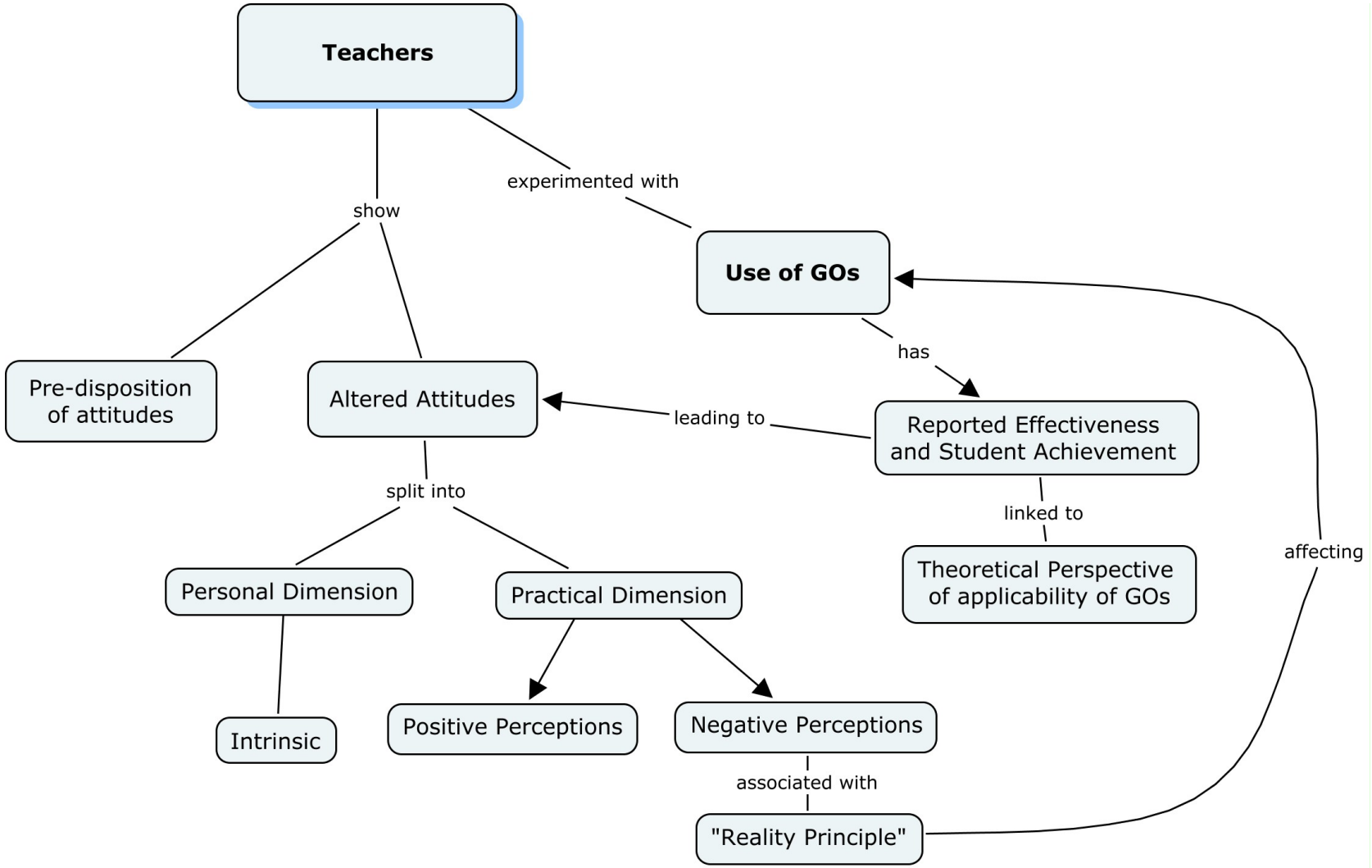
Code-Filter: All

HU: Phd
File: [J:\#Maria#\#KINGS COLLEGE LONDON - PhD#\Data Collection\Phd.hpr7]
Edited by: Super
Date/Time: 2015-05-25 12:01:45

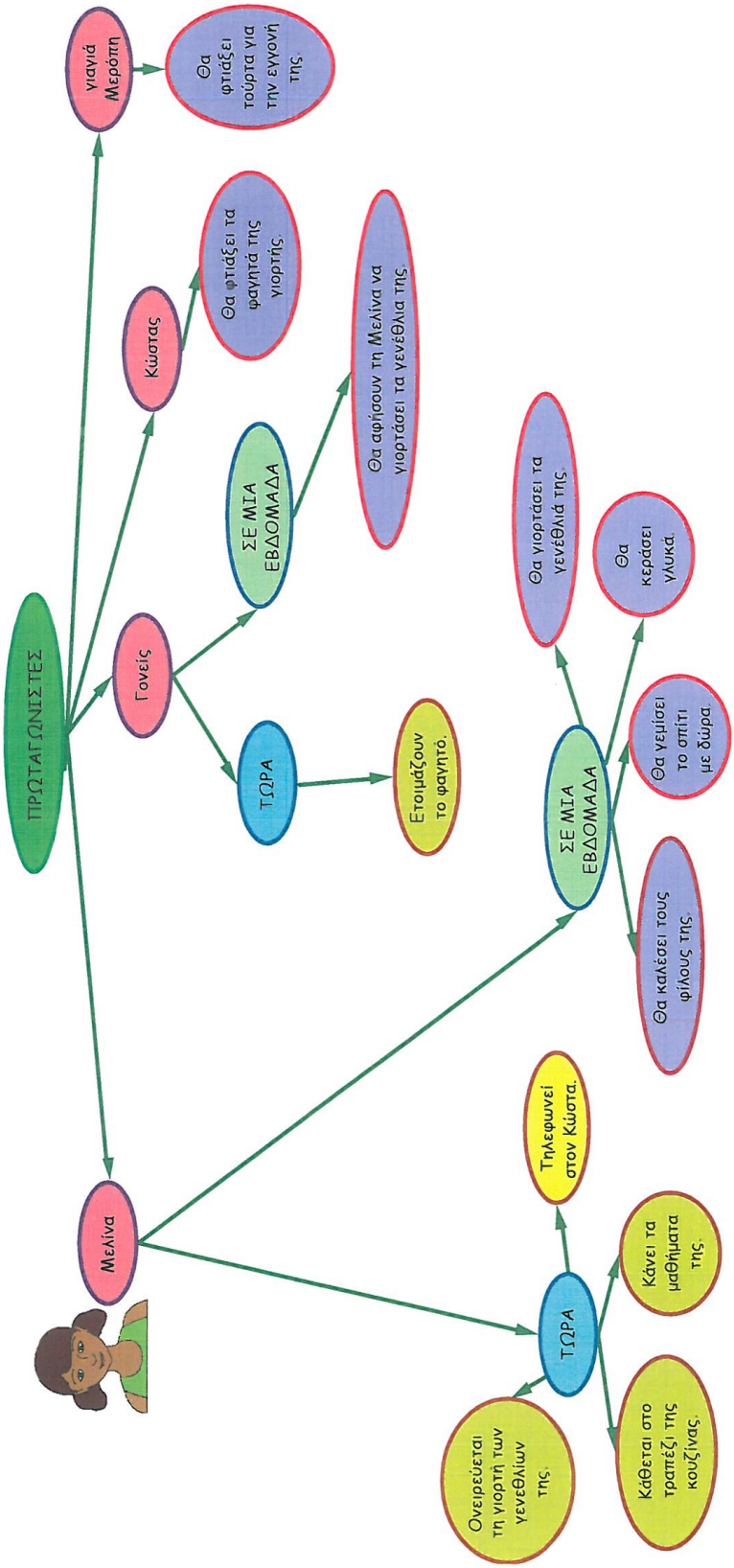
"Negative" Perceptions/ Comments - Does it work in longer text?
"Negative" Perceptions/ Comments - Need extra research on its effectiveness
"Negative" Perceptions/Comments of GOs - Giving the Answers - No student effort
"Negative" Perceptions/Comments of GOs - Need for training in its use
Challenge in Sp. Ed. Model as it is now
Challenge in Using GOs - Additional/ Extra Effort/Time
Challenge in Using GOs - Designing GOs
Challenge in Using GOs - If how teacher thinks about it will work on students
Mode of Use - Alternative Uses
Mode of Use - Collaborative design
Mode of Use - Ready Made
Mode of Use - Suggestions for Better Results
Mode of Use - Suggestions for Better Results - Pictures
Need to try more times without researcher's presence
Other Comments - Recommendation to Others
Other Comments - Software / PC provision
Positive Perceptions of GOs - Flexibility in Design according to student needs
Positive Perceptions of GOs - Gradual familiarisation with design
Positive Perceptions of GOs - opportunity for collaborative works among students
Positive Perceptions of GOs - Summarising Potential
Positive Perceptions of GOs - Use of Colours
Reported Effectiveness of GOs - Categorisation of info
Reported Effectiveness of GOs - For Teachers
Reported Effectiveness of GOs - GO as Future Acquired Strategy
Reported Effectiveness of GOs - GO as Mediation/ Aid
Reported Effectiveness of GOs - GO as prerequisite to continue
Reported Effectiveness of GOs - Motivation/ Confidence for students
Reported Effectiveness of GOs - Not Boring
Reported Effectiveness of GOs - Not lost in long text
Reported Effectiveness of GOs - Organised Knowledge - for teacher and student
Reported Effectiveness of GOs - Practice of writing skills
Reported Effectiveness of GOs - Retelling
Reported Effectiveness of GOs - Web of knowledge -Keep adding
Reported Effectivenss of GOs - Reading Comprehension
Teachers - Attitudes- Role of Sp. Ed. Teachers
Teachers - Attitudes - Importance of Autonomy
Teachers - Attitudes - Importance of linking knowledge with real life examples
Teachers - Attitudes - self-critique
Teachers - Attitudes - their Obligation as teachers
Teachers - Attitudes - Willingness to Try Anything that Might Help
Teachers - Attitudes -Project as a challange to experiment - linked to autonomy
Teachers - Motivation/ Confidence - Student Reaction - Body Language
Teachers - Motivation/Confidence to Experiment when it is working
Teachers - Perceptions on Learning - Importance of Main Ideas

Teachers - Perceptions on Learning - Importance of Metacognition
Teachers - Perceptions on Learning - Importance of Visual Representation
Teachers - Perceptions on Learning - Knowledge Definition
Teachers - Perceptions on Learning - Reading Comprehension Definition
Teachers - Perceptions on Learning - Student as Active Learner with Choices
Teachers - Perceptions on Learning - Students need training for writing more
Γιατί δεν είχα να κάνω καθαρά ..

Appendix 14 – Graphic organiser illustrating initial thematic organisation



Appendix 15 – Artemis: First lesson



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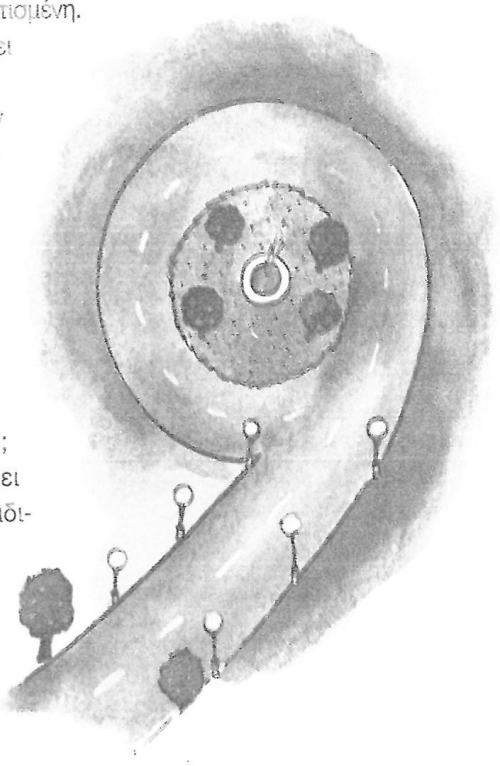
Αξέχαστα γενέθλια

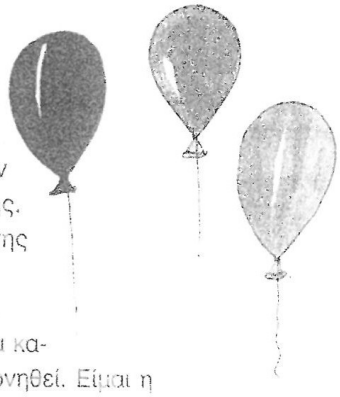
Σε λίγες μέρες η Μελίνα έχει τα γενέθλιά της. Θα κλείσει τα οχτώ και «θα περπατήσει στα εννιά», όπως λέει η γιαγιά Μερόπη. Αναρωτιέται πώς είναι να περπατάει κανείς στα εννιά! Όταν ήταν μικρή, ήξερε πώς είναι να περπατάς στα τέσσερα! Αλλά αυτό το εννιά πρέπει να μοιάζει με ολόφωτη λεωφόρο που καταλήγει σε μια στρογγυλή πλατεία. Μια πλατεία με σιντριβάνι. Μια πλατεία που θα πλημμυρίσει από φίλους και συμμαθητές.

Κάθεται στο τραπέζι της κουζίνας. Μερικά χειμωνιάτικα απογεύματα προτιμά να διαβάζει εκεί παρά στο δωμάτιό της. Έχει απλώσει τα τετράδια, τα χρωματιστά μολύβια, τις γόμες και τα βιβλία. Αύριο είναι Κυριακή και θέλει να είναι ελεύθερη. Τα μαθήματα θα της πάρουν λίγη ώρα κι έχει αρχίσει με τα Μαθηματικά. «Γράφω τέσσερα στο πηλίκο. Τρεις τέσσερις δώδεκα, από δεκατρία ένα» ψιθυρίζει κάνοντας μια διαίρεση. «Κάτω το εννιά...» συνεχίζει και στομιάτα σαστισμένη.
Γιατί κάτω το εννιά; Ζήτω το εννιά, θέλει να πει.



Ονειρεύεται τη γιορτή των γενεθλίων της. Θα γεμίσει το σπίτι με δώρα και μπαλόνια. Κόκκινα, κίτρινα, πράσινα! Θα κεράσει γλυκά τα παιδιά. Θα σβήσει τα κεράκια στην τούρτα. Θα γελάσει με τις φίλες της πειράζοντας τα αγόρια. Τους θέλει όλους μαζί της.

– Πότε θα αρχίσουμε τις ετοιμασίες για τη γιορτή μου; Πότε θα γράψουμε προσκλήσεις για την τάξη μου;
– Μας μένει μόνο μία εβδομάδα!, λέει στη μητέρα της που ετοιμάζει για βραδινό μια λαχανόσουπα.
– Μα πόσους θέλεις να καλέσεις; Εσύ χρειάζεσαι πλατεία και όχι σπίτι! Πότε θα προλάβω να κάνω τόσες ετοιμασίες; Τέλειωνε με τα μαθήματά σου.



Η Μελίνα ξαναγύρισε σκεφτική στη διαίρεση. «Κάτω και το εννιά». Κάθε χρόνο οι ίδιες δικαιολογίες. Κάθε χρόνο οι μεγάλοι κανονίζουν τα γενέθλιά της. Είναι πολύ λυπημένη. Την ώρα του φαγητού άκουγε ασήμαντες κουβέντες για τη μέρα που πέρασε. Στην πραγματικότητα, δεν πρόσεχε τι έλεγαν οι γονείς της. Μάζευε τις δυνάμεις της. «Η τώρα ή ποτέ» είπε μέσα της και πετάχτηκε απότομα:

– Θέλω να κάνω μια μεγάλη γιορτή για τα γενέθλιά μου. Κάντε μου το χατίρι. Μια φορά γίνεσαι εννιά χρονών! Θα καλέσουμε κι ενισχύσεις, τη γιαγιά Μερόπη. Δε θα μου αρνηθεί. Είμαι η αδυναμία της!

Οι γονείς της κοιτάχτηκαν στα μάτια με νόημα και ξέσπασαν σε γέλια.

– Άμα σου μπει κάτι στο μυαλό... είπε ο πατέρας και τη φίλησε στο μάγουλο.

– Τέλεια! Τρέχω να τηλεφωνήσω στον Κώστα, φώναξε ενθουσιασμένη, αφήνοντας το κουτάλι να πέσει στη σούπα της. Πλατς!

– Καθήκοντα μάγειρα αναλαμβάνω εγώ. Σάντουιτς, μεζεδάκια και σαλάτες θα καταφέρω να φτιάξω με λίγη βοήθεια. Για τούρτα, ξέχασέ το. Ζαχαροπλάστης δεν έγινα ακόμη, της είπε το φιλαράκι της από την άλλη γραμμή του τηλεφώνου.

– Μη σε νοιάζει, αυτή είναι δουλειά για τη γιαγιά Μερόπη.

Όλο το βραδυ στροβιλίζονταν στο όνειρό της κόκκινα, πράσινα και κίτρινα μπαλόνια! Έμεναν μόλις εφτά μέρες για να περπατήσει εννιά ολόκληρα χρόνια!

ΚΕΙΜΕΝΟ: ΑΞΕΧΑΣΤΑ ΓΕΝΕΘΛΙΑ

1η Άσκηση

1η παράγραφος*

1. Ποιο είναι το όνομα της πρωταγωνίστριας στην ιστορία;
2. Τι θα γιορτάσει σε λίγες μέρες η Μελίνα;
3. Πόσο χρονών είναι και πόσο θα γίνει η Μελίνα;

3η παράγραφος*

1. Τι ονειρεύεται ότι θα συμβεί η Μελίνα;

Α. Σχετικά με το σπίτι
Β. με τα παιδιά
Γ. με τα κεράκια
Δ. με τις φίλες της

4η παράγραφος*

2. Η Μελίνα είναι λυπημένη. Γιατί;
3. Τι αποφάσισε τελικά η Μελίνα;

Γενικές ερωτήσεις

Εκτός από τη Μελίνα ποια άλλα πρόσωπα συμμετέχουν στην ιστορία;
Ποιος έχει αντιρρήσεις για τη γιορτή της Μελίνας και γιατί;
Θα γίνει τελικά η γιορτή γενεθλίων της Μελίνας;
Πώς κατάφερε η Μελίνα να πείσει τους γονείς της; Δυσκολεύτηκε;

2η άσκηση:

Βάλε ✓ στις προτάσεις που συμφωνείς:

Η Μελίνα διαβάζει στην κουζίνα του σπιτιού της	
Η Μελίνα διαβάζει Ιστορία	
Η Μελίνα θα έχει σε λίγες ημέρες γενέθλια	
Αύριο είναι Κυριακή και θέλει να πάει στο Θέατρο	
Θα κεράσει γλυκά στον μπαμπά και στη μαμά	
Θα παίξει μόνη της στο δωμάτιό της	

Ξεχώρισε τις προτάσεις όπου κάποια πράγματα θα γίνονται συνέχεια στο μέλλον ή μόνο για μια στιγμή.

	γίνονται για μια στιγμή	**γίνονται συνέχεια**
Η Μελίνα θα χορεύει όλο το βράδυ στα γενέθλιά της συνεχώς.		
Ο μπαμπάς της θα χορέψει μόνο ένα χορό.		
Η Μελίνα θα γιορτάσει τα γενέθλιά της σε λίγες ημέρες.		
Ο μπαμπάς θα γιορτάζει συνεχώς.		
Η Μελίνα θα γράφει προσκλήσεις όλο το πρωί συνέχεια.		
Η Μελίνα θα γράψει τις προσκλήσεις.		
Η Μελίνα θα φυσά τα κεράκια συνεχώς στην τούρτα μέχρι να σβήσουν.		

Τι παρατηρείς;

Παρατηρώ ότι η Μελίνα θέλει να κάνει κάποια πράγματα, είτε συνέχεια, είτε μόνο για μια στιγμή.

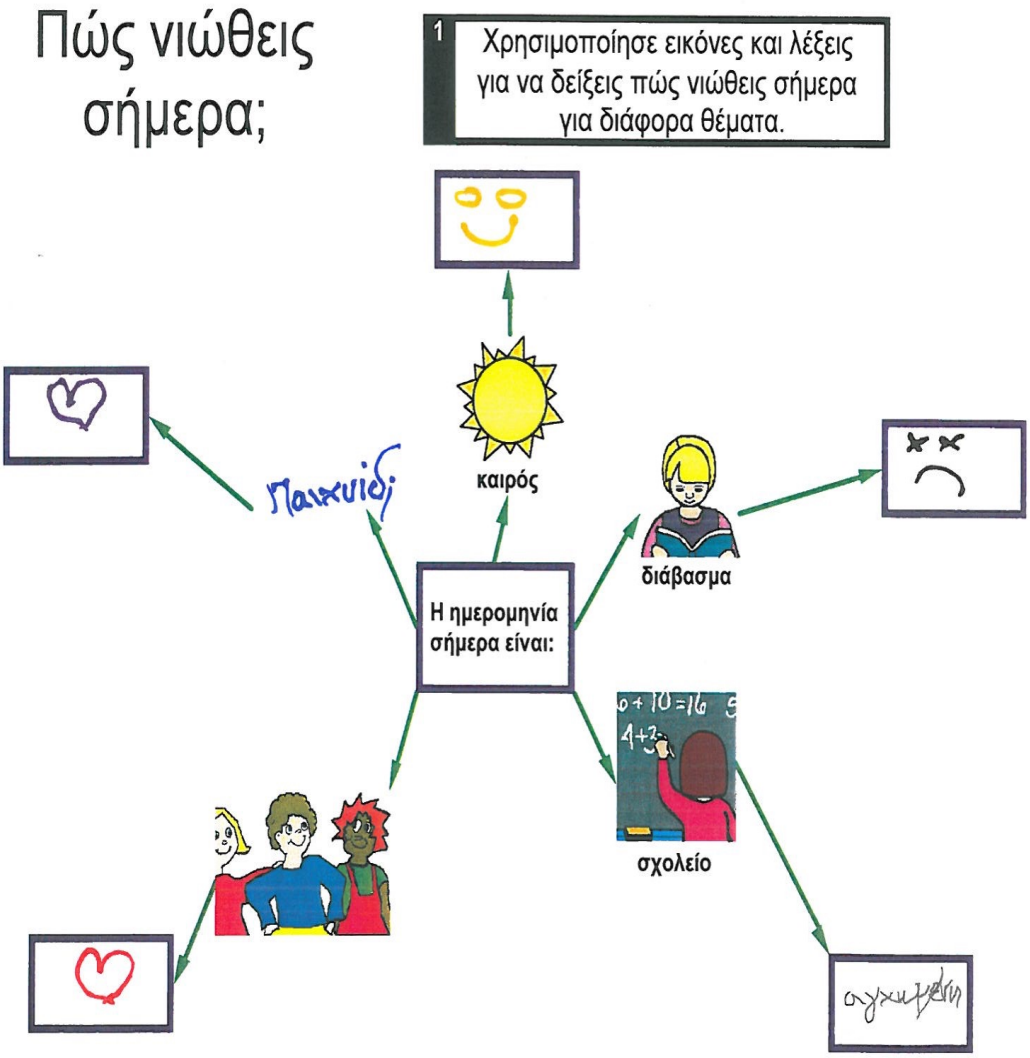
Όταν η Μελίνα θα κάνει κάποια πράγματα συνέχεια στο μέλλον, χρησιμοποιεί **εξακολουθητικό μέλλοντα**.

Όταν η Μελίνα θα κάνει κάποια πράγματα για μια στιγμή, χρησιμοποιεί **στιγμιαίο μέλλοντα**.

Συμπλήρωσε τον πίνακα

Εξακολουθητικός μέλλοντας	**Στιγμιαίος μέλλοντας**
θα παίζω μπάλα	
	θα τρέξω στο γήπεδο
θα γράφω γράμματα	
	δεν θα διαβάσω
δεν θα βλέπω τηλεόραση	
	Η Μελίνα θα γράψει τις προσκλήσεις

Appendix 16 – Artemis: Second lesson



Σκέψεις και συναισθήματα

Σκέψεις που με κάνουν να νιώθω **όμορφα**:

1.

2.

3.

Σκέψεις που με κάνουν **λυπημένο**:

1.

2.

3.

Δραστηριότητες και συναισθήματα

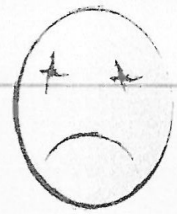
Δραστηριότητες και πράγματα που **με κάνουν να χαίρομαι**:

1.

2.

3.

Δραστηριότητες και πράγματα που με **στενοχωρούν**:



1.

2.

3.

Ποιο συναίσθημα ταιριάζει πού;

Σε διάφορα μέρη και σε διαφορετικές καταστάσεις έχουμε διαφορετικά συναισθήματα. Χρησιμοποίησε διαφορετικό χρώμα και ένωσε με μια γραμμή την κάθε κατάσταση με το συναίσθημα που της αντιστοιχεί καλύτερα.

Με τα άλλα παιδιά

Στο σπίτι

Όταν πάω για ύπνο

Για ψώνια

Στο σχολείο

Με τη μαμά ή τον μπαμπά

Με τον καλύτερό μου φίλο

Όταν είμαι μόνος μου

Λυπημένος

Χαρούμενος

Ανήσυχος

Θυμωμένος

Ήρεμος

Φοβισμένος

Ενθουσιασμένος

Χαλαρός

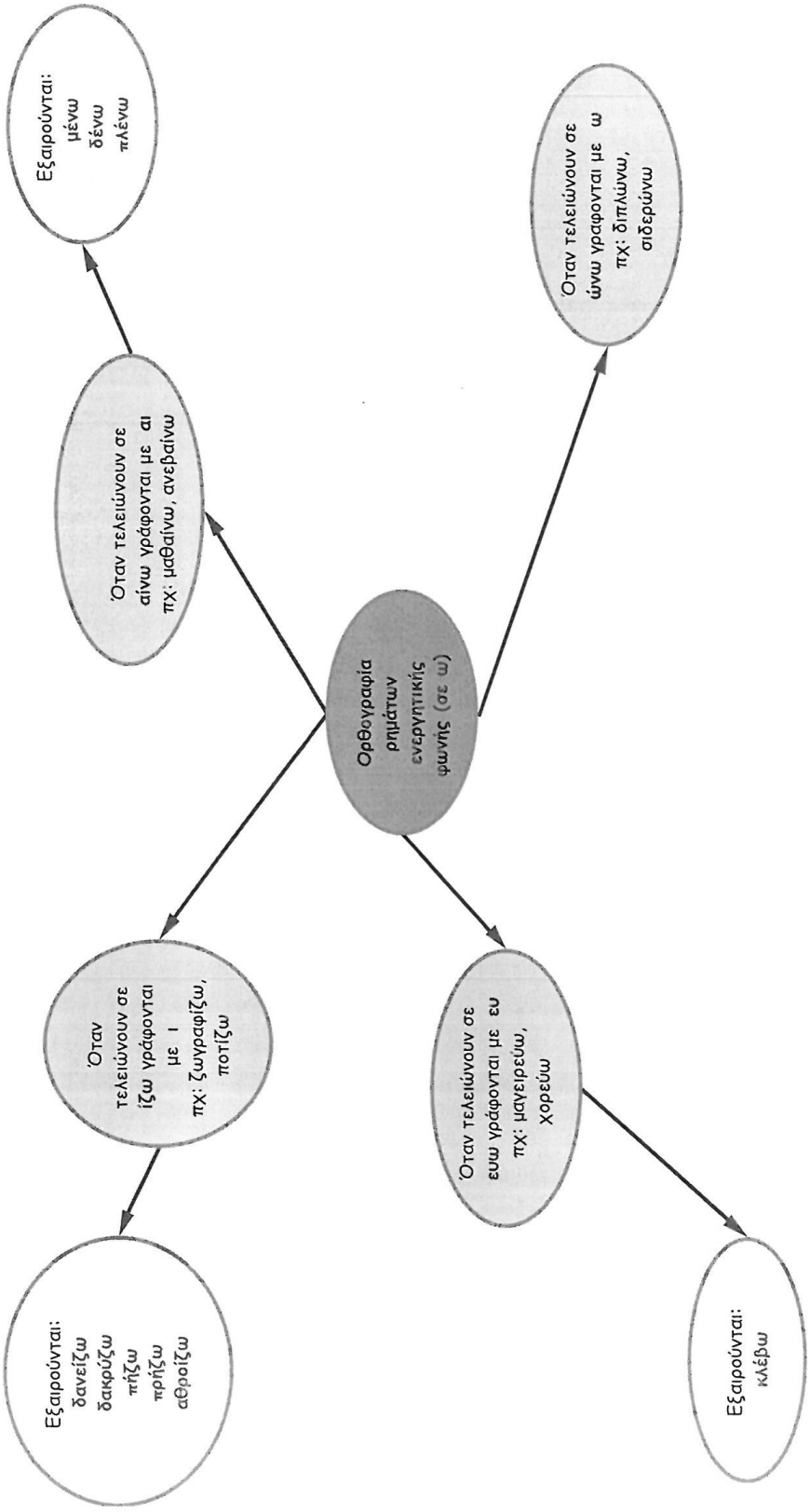
Τρομαγμένος

Βαριεστημένος

Χορτασμένος

Αναστατωμένος

Appendix 17 – Artemis: Third lesson



Ορθογραφία Ρημάτων

Τα ρήματα που τελειώνουν σε -ίζω γράφονται με γιώτα (ι)

π.χ. εγώ δροσίζω

Εξαιρούνται δανείζω, δακρύζω, κελαρύζω, πήζω, πρήζω, αθροίζω

5. Συμπληρώνω ό,τι λείπει από τα ρήματα σε -ίζω:

Ο κηπουρός ποτ ..... τον κήπο.

Εμείς ελπ ..... να σας δούμε, σύντομα.

Τα παιδιά στολ ..... το χριστουγεννιάτικο δέντρο.

Εσύ συγυρ ..... το δωμάτιό σου κάθε μέρα.

Εγώ χρωματ ..... τη ζωγραφιά μου με μαρκαδόρους.

Τα ρήματα που τελειώνουν σε -ώνω γράφονται με ωμέγα (ω)

π.χ. εγώ τεντώνω

6. Συμπληρώνω τις προτάσεις με το ρήμα της παρένθεσης στον κατάλληλο τύπο.

Το χειμώνα ..... τα χέρια μου. (παγώνω)

Η μητέρα ..... ένα πουκάμισο. (σιδερώνω)

Μη ..... στα δέντρα της αυλής. (σκαρφαλώνω)

Εγώ ..... την πόρτα του αυτοκινήτου. (κλειδώνω)

Εμείς ..... προσεκτικά τις βαλίτσες. (φορτώνω)

Τα ρήματα που τελειώνουν σε -αίνω γράφονται με άλφα γιώτα (αι)

π.χ. εγώ μαθαίνω

Εξαιρούνται δένω, μένω, πλένω

7. Συμπληρώνω τα κενά με το κατάλληλο ρήμα:

πηγαίνουμε, μαθαίνει, μπαίνουν, ανεβαίνω, ζεσταίνεις

Εγώ ..... δυο δυο τα σκαλιά.

Κάθε Κυριακή ..... στις κούνιες με τους φίλους μου.

Εσύ ..... το φαγητό στο φούρνο.

Οι μαθητές ..... ήσυχα στις τάξεις τους.

Η Άννα ..... πολύ καλά την ορθογραφία της.

Τα ρήματα που τελειώνουν σε -εύω γράφονται με ευ

π.χ. μαγειρεύω

Εξαιρείται κλέβω

8. Από τις παρακάτω λέξεις φτιάχνω ρήματα σε -εύω:

άγριος ..... ταξίδι .....

χορός ..... ψαράς .....

μαγεία ..... κλαδί .....

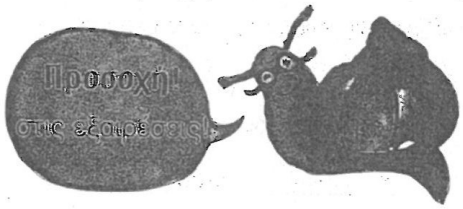
Επαναληπτικές ασκήσεις

1. Βάζω τα ρήματα της παρένθεσης στο σωστό βαγόνι:

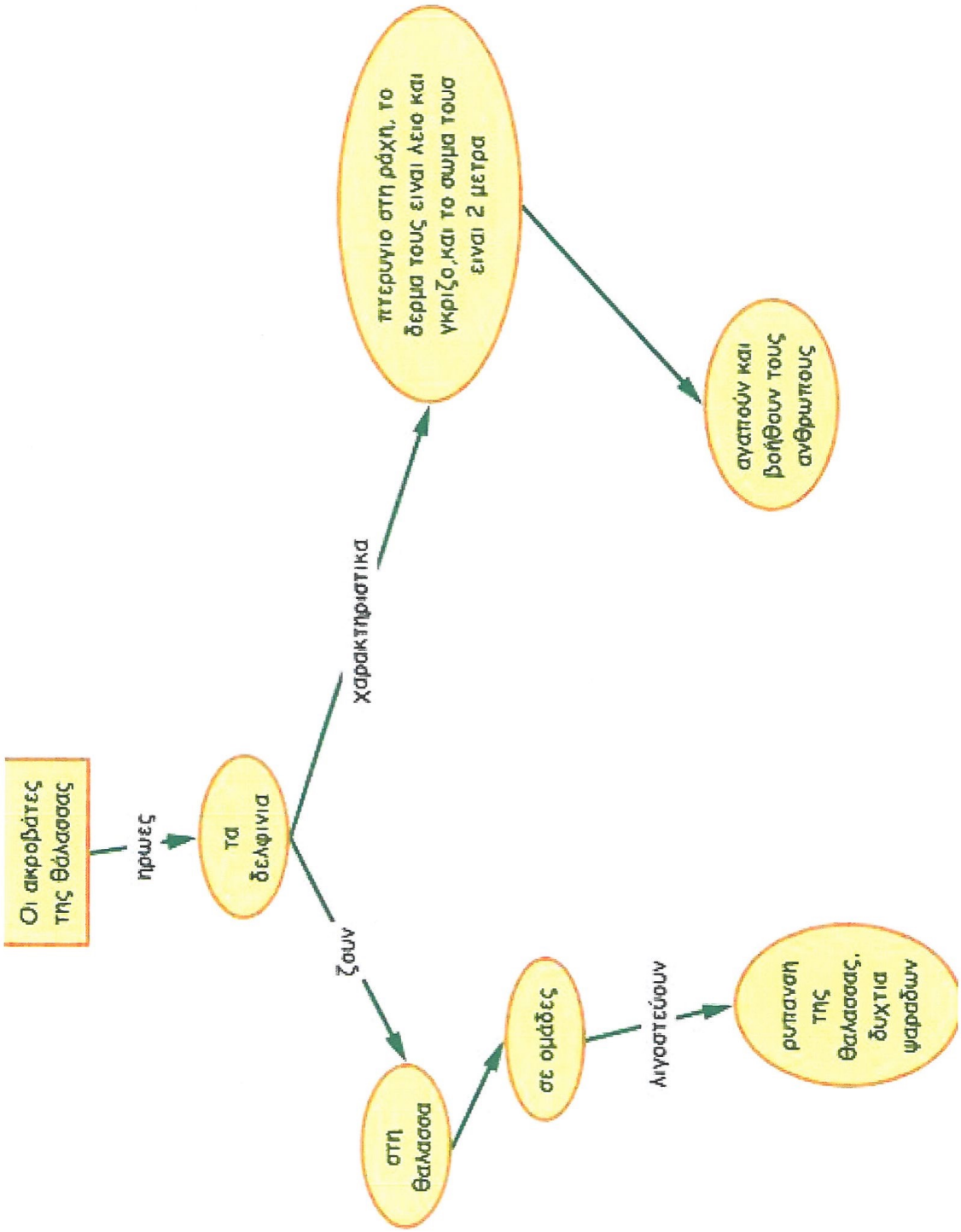
χαρίζω, χαμηλώνω, νηστεύω, κατεβαίνω, κρυώνω, ενώνω, μαζεύω, κοκκινίζω, κυκλώνω, παχαίνω, ομορφαίνω, ραντίζω, ληστεύω, βαφτίζω, κοροϊδεύω, υφαίνω

2. Συμπληρώνω τα γράμματα που λείπουν και τονίζω τις λέξεις:

εγώ διορθ.....ν.....	εγώ χαρ.....ζ.....	εγώ ζυγ.....ζω
εγώ φυτ..... ω	εγώ καταλαβ.....νω	εγώ φανερ.....νω
εγώ δ.....νω	εγώ ασπρ.....ζω	εγώ κλε.....ω
εγώ δακρ.....ζω	εγώ μ.....νω	εγώ δαν.....ζω
εγώ μεγαλ.....νω	εγώ χορ.....ω	εγώ πλ.....νω



Appendix 18 – Hestia: First lesson



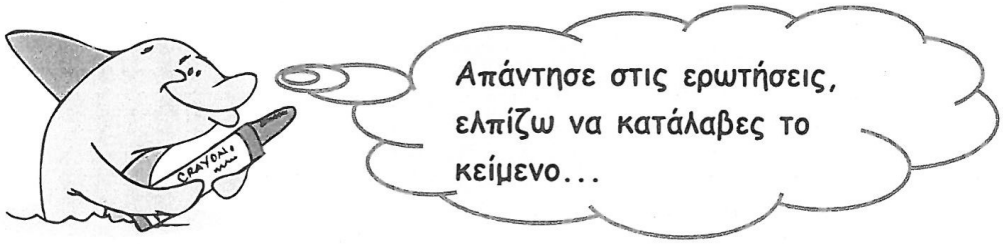
Οι ακροβάτες της θάλασσας

Στο κείμενο μαθαίνουμε για τα πολύ αγαπητά σε όλους μας δελφίνια.

Τα δελφίνια με τα καμώματα και τα παιχνίδια τους ξετρελαίνουν μικρούς και μεγάλους.

Πολλοί είναι οι μύθοι και οι ιστορίες που μιλάνε για τις ιδιαίτερες σχέσεις που είχαν τα δελφίνια με τους ανθρώπους.

Δυστυχώς μαθαίνουμε ότι τα δελφίνια όσο πάνε και λιγοστεύουν. Οι αιτίες είναι: η ρύπανση των θαλασσών και τα δίχτυα των ψαράδων.



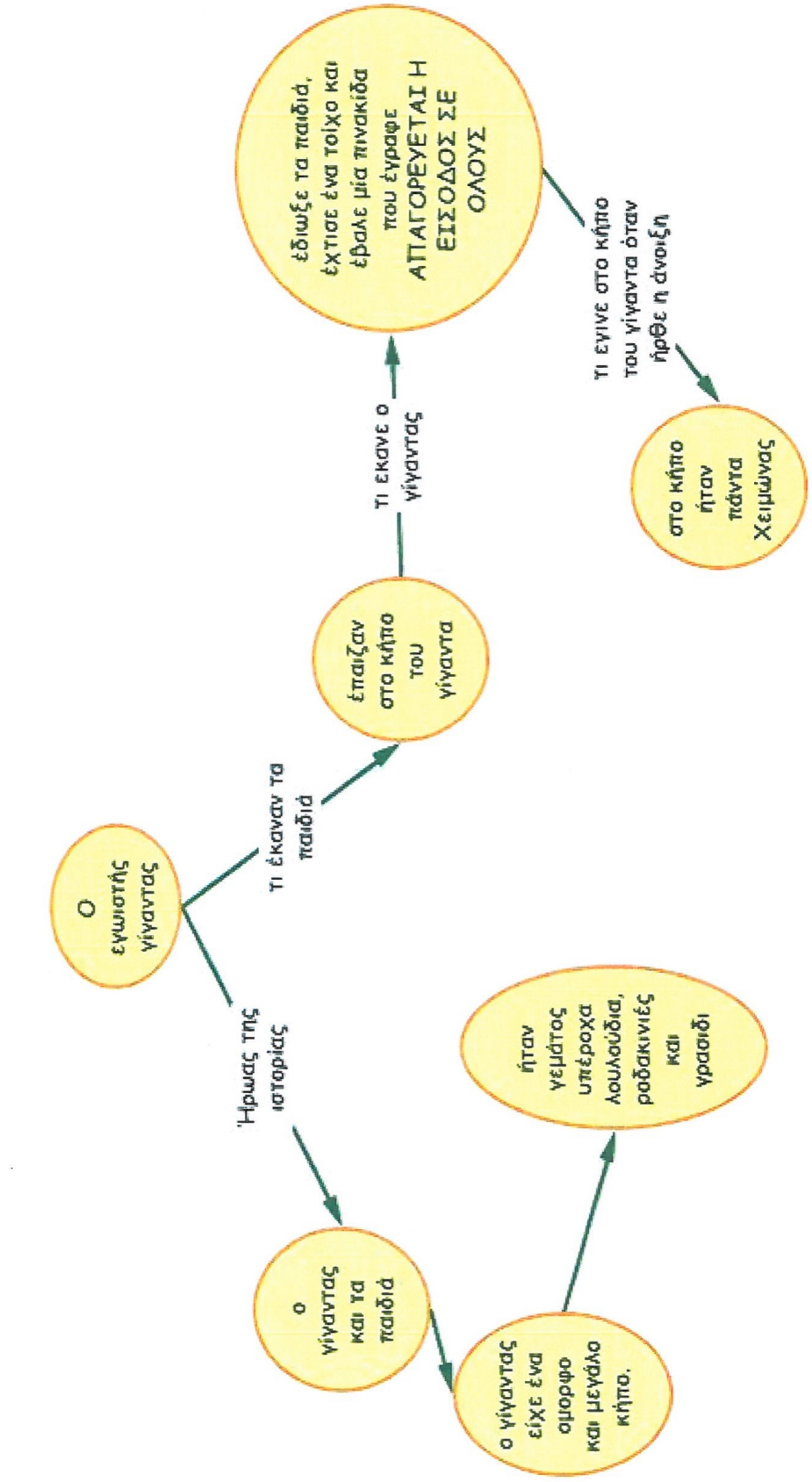
1) Για ποιά ζώα μαθαίνουμε στο κείμενο;
2) Πώς μας ξετρελαίνουν τα δελφίνια;
3) Από που μαθαίνουμε για τις σχέσεις των ανθρώπων με τα δελφίνια;
4) Ποιες είναι οι αιτίες και λιγοστεύουν οι αριθμοί των δελφινιών;

Απαντήσεις:

1) Στο κείμενο μαθαίνουμε για τα δελφίνια
2) Τα δελφίνια ξετρελαίνουν τα καμώματα και τα παιχνίδια τους και μεγάλοι.
3) Μαθαίνω από τις μιλιές και τες ιστορίες.
4) Οι αιτίες είναι διάφορες της θαλασσάς και τα δίχτυα των ψαράδων.

ΜΠΡΑΒΟ

Appendix 19 – Hestia: Second lesson

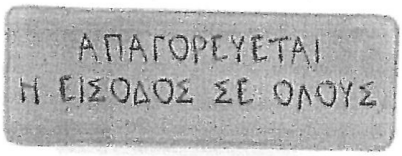


Ο εγωιστής γίγαντας

Κάθε απόγευμα τα παιδιά έπαιζαν σε ένα πολύ μεγάλο και όμορφο κήπο ενός γίγαντα. Στον κήπο υπήρχε γρασίδι, υπέροχα λουλούδια και πολλές ροδακινιές. Τα πουλιά κάθονταν πάνω στα δέντρα και τραγουδούσαν πολύ γλυκά. Τα παιδιά ήταν πολύ ευτυχισμένα που μπορούσαν να παίζουν στον κήπο αυτό.

Μια μέρα ο γίγαντας γύρισε. Μόλις έφτασε στο σπίτι του, είδε τα παιδιά να παίζουν στον κήπο.

«Τι κάνετε εδώ;» φώναξε με την άγριά του φωνή. «Ο κήπος αυτός είναι δικός μου και δεν αφήνω κανένα να παίζει εδώ. Μόνο εγώ μπορώ». Έτσι έχτισε γύρω γύρω ένα πολύ ψηλό τοίχο και έβαλε μία πινακίδα που έλεγε:



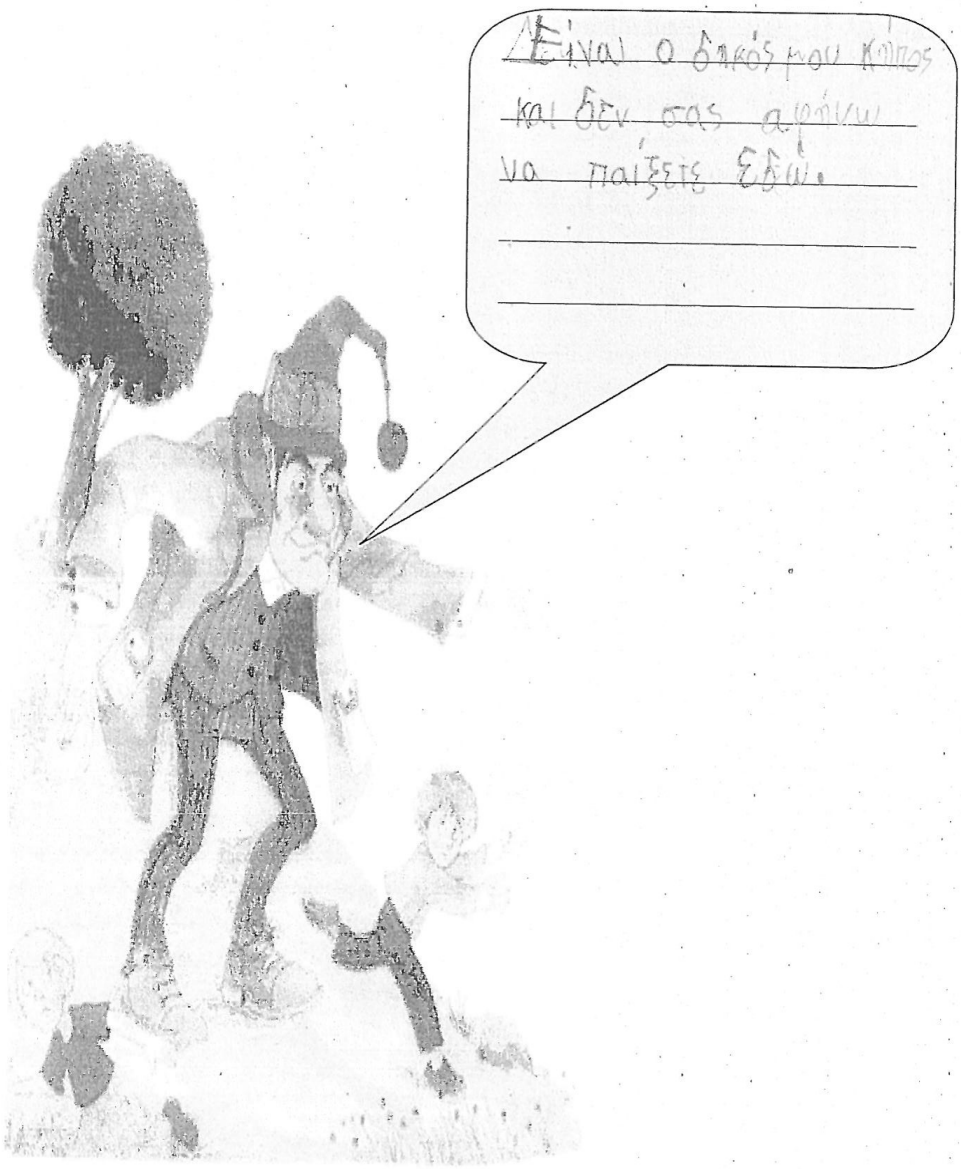
Τα καημένα τα παιδιά δεν ήξεραν που να πάνε να παίξουν. Προσπάθησαν να παίξουν στο δρόμο, αλλά εκεί είχε πολλή σκόνη και πέτρες και δεν τους άρεσε. Ανέβαιναν πάνω στον ψηλό τοίχο, έβλεπαν τον όμορφο κήπο και έλεγαν: «Τι όμορφα που ήταν τότε που παίζαμε εδώ».

Ώσπου ήρθε η Άνοιξη. Παντού σε όλη τη χώρα τα λουλούδια άνθισαν και ήρθαν τα πουλιά. Μόνο στον κήπο του γίγαντα συνέχιζε να είναι ο χειμώνας. Το χιόνι σκέπασε το γρασίδι και κάθε μέρα έπεφτε χαλάζι για τρεις ώρες.

«Δεν μπορώ να καταλάβω γιατί αργεί τόσο πολύ να έρθει η Άνοιξη φέτος. Μακάρι να αλλάξει λίγο ο καιρός», έλεγε ο γίγαντας.

Όμως η άνοιξη δεν ήρθε ποτέ. Στον κήπο του γίγαντα ήταν πάντα χειμώνας. Βοριάς, χαλάζι, χιόνι και παγωνιά υπήρχαν παντού.

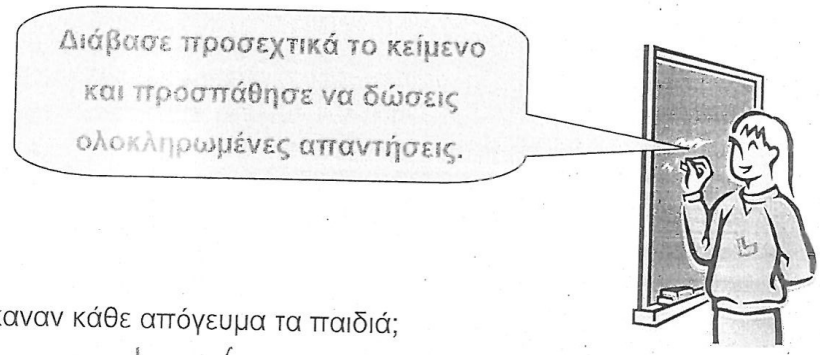
Γράφω τι είπε ο γίγαντας στα παιδιά για να τα διώξει από τον κήπο του:



ΠΑΙΔΙΑ ΣΑΣ ΑΦΗΝΩ ΝΑ ΠΑΙΖΕΤΕ ΣΤΟΝ ΚΗΠΟ ΜΟΥ ΠΡΟΣΕΚΤΙΚΑ

Ο εγωιστής γίγαντας

Απαντώ τις ερωτήσεις:



1. Τι έκαναν κάθε απόγευμα τα παιδιά;

Τα παιδιά έπαιζαν στον κήπο του γίγαντας κάθε απόγευμα.

2. Ποιος είχε αυτό τον κήπο;

Τον κήπο είχε ο γίγαντας.

3. Περίγραψέ μου τον κήπο.

Στον κήπο υπήρχε χαλασίδι, υπέροχα λουλούδια και πολλές ροδακινιές.

4. Τι έκανε ο γίγαντας όταν γύρισε στο σπίτι του;

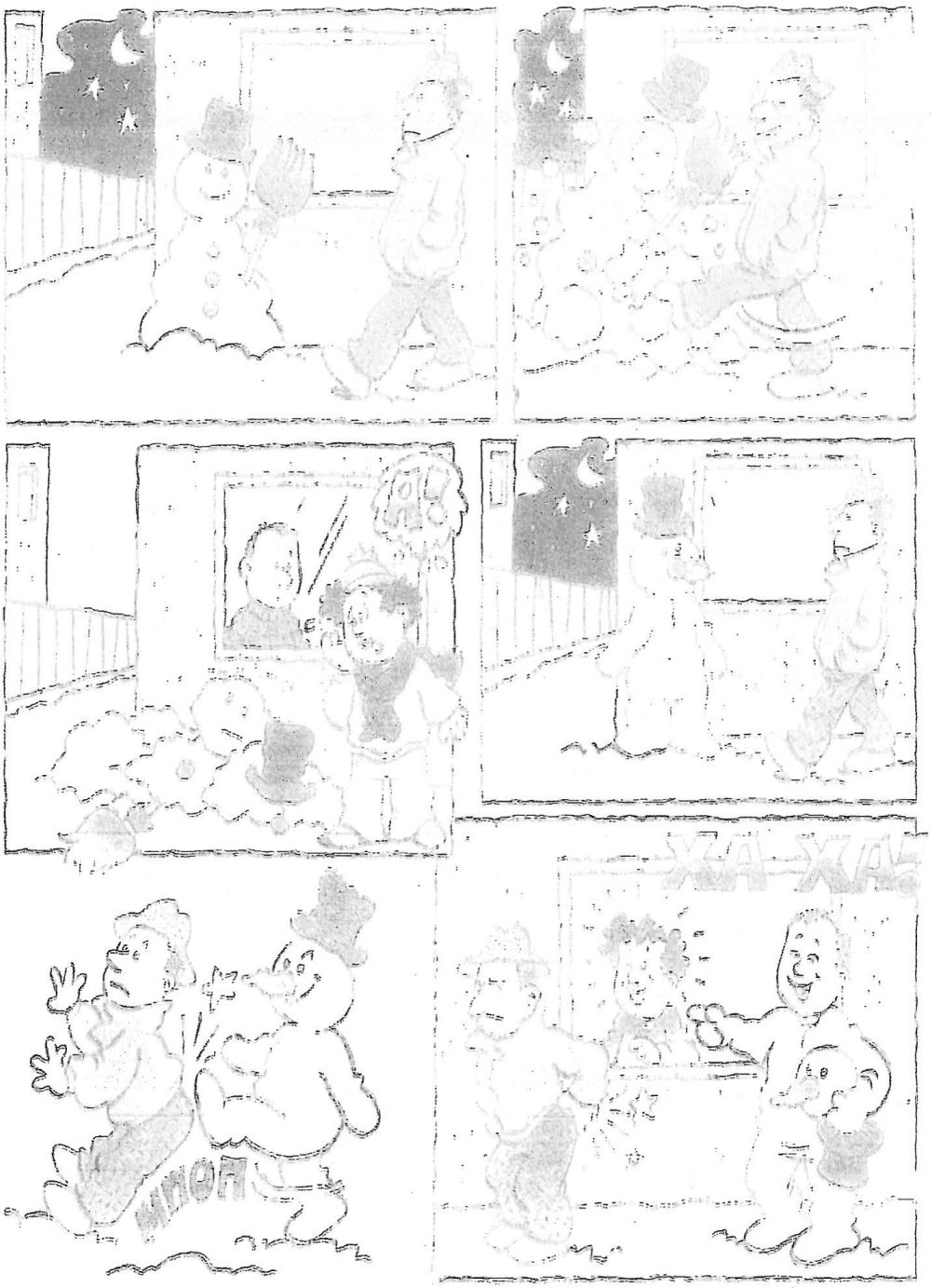
Βρήκε τα παιδιά να παίζουν στον κήπο του και τα έδιωξε.

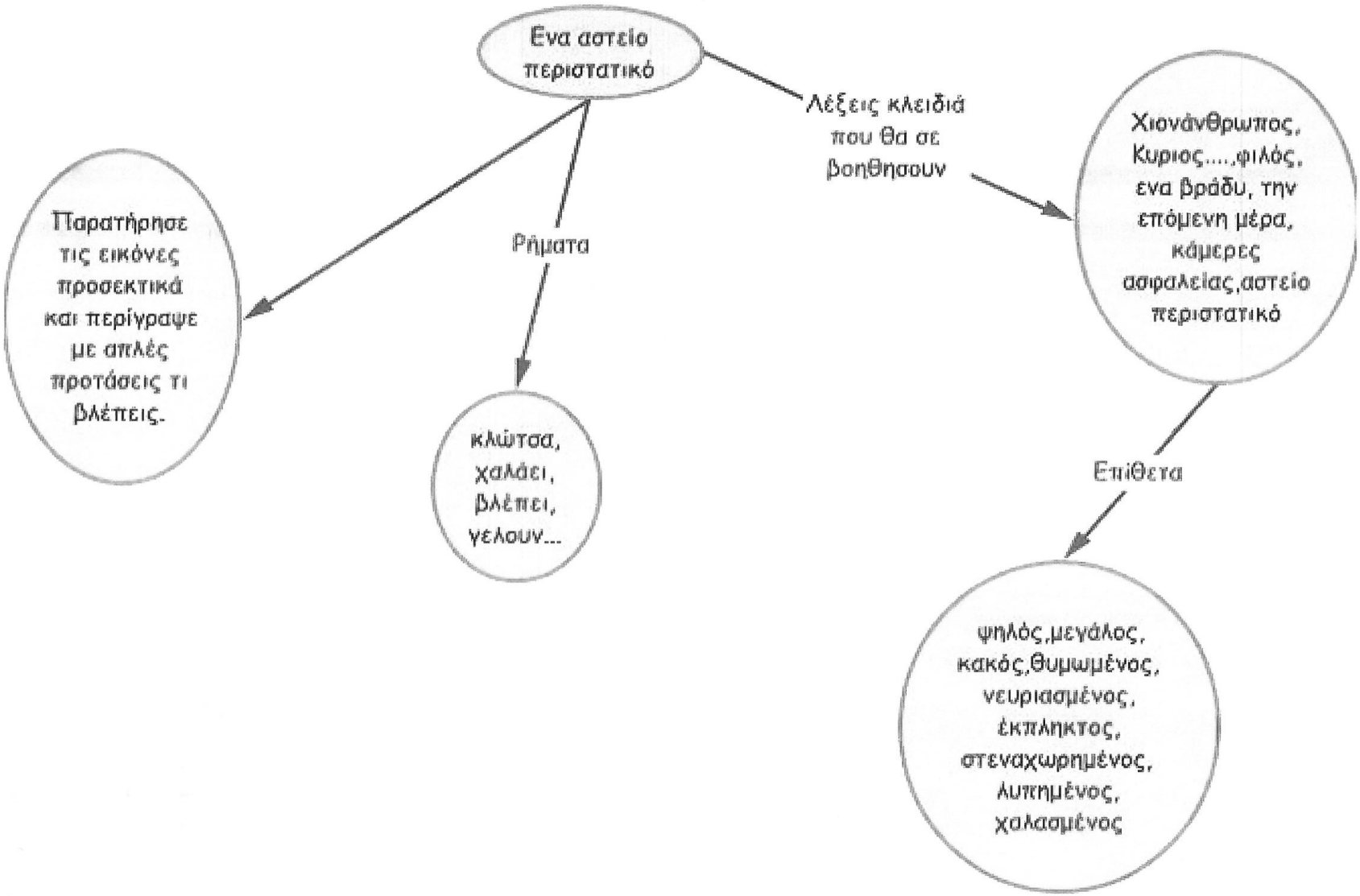
5. Τι έγινε στον κήπο του γίγαντα όταν ήρθε η άνοιξη;

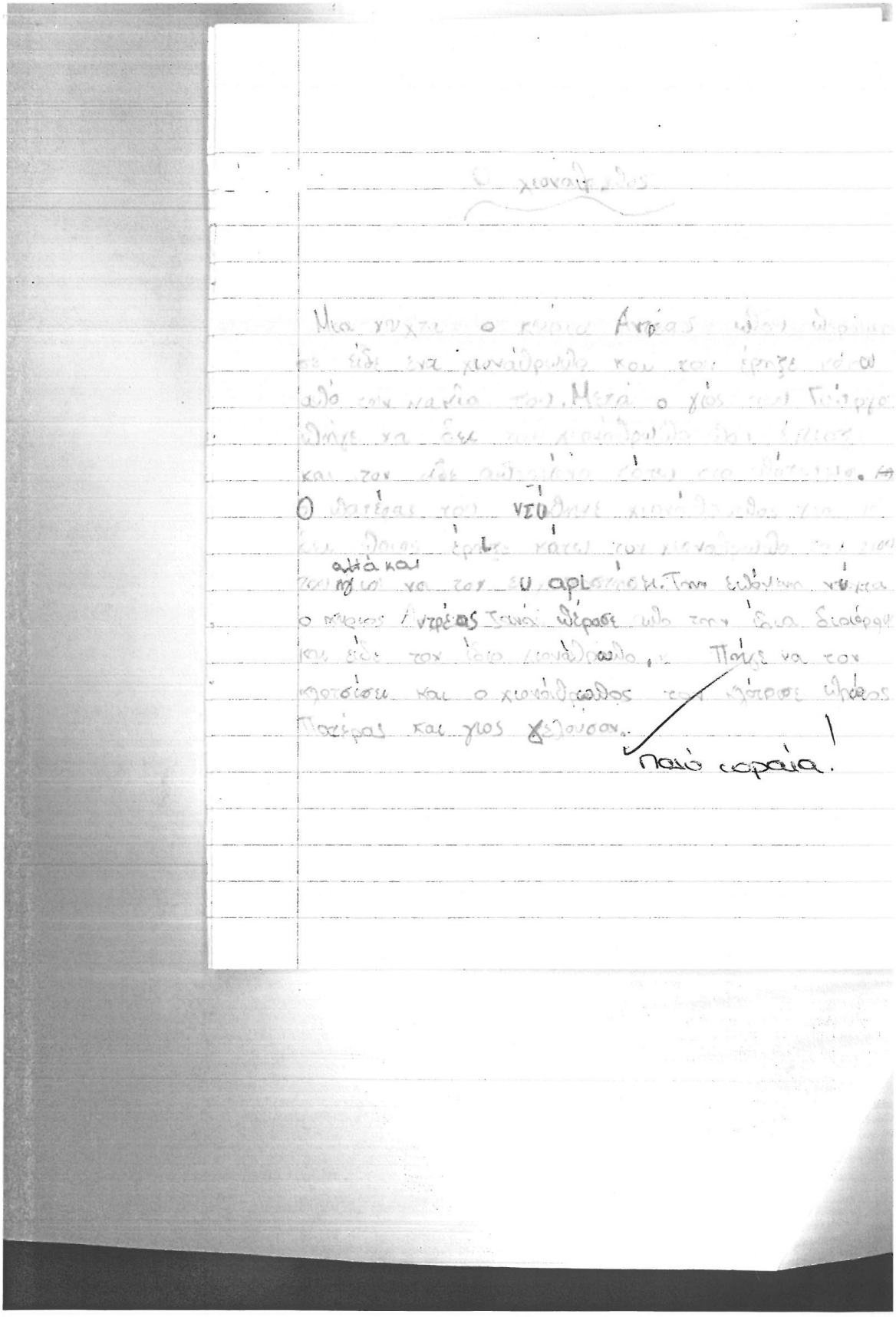
Στον κήπο του γίγαντα έμεινε χειμώνας.

Appendix 20: Hestia: Third lesson

Βάλε τις εικόνες στη σωστή σειρά και φτιάξε μια ιστορία (*Σημ. Για Δ΄ - Στ΄)




Ενα αστείο περιστατικό
Παρατήρησε τις εικόνες προσεκτικά και περίγραψε με απλές προτάσεις τι βλέπεις.
Ρήματα
κλώτσα, χαλάει, βλέπει, γελουν...
Λέξεις κλειδιά που θα σε βοηθησουν
Χιονάνθρωπος, Κυριος....,φιλός, ενα βράδυ, την επόμενη μέρα, κάμερες ασφαλείας,αστείο περιστατικό
Επίθετα
ψηλός,μεγάλος, κακός,θυμωμένος, νευριασμένος, έκπληκτος, στεναχωρημένος, λυπημένος, χαλασμένος



Appendix 21: Athena: First lesson

Ο Ερωτευμένος Βάτραχος

Κεντρική Ιδέα: Ενας βατραχος αγαπουσε μια λεφτη πριγκιπισσα και προσπαθουσε να βρει τροπο να της το εκφρασει

Κεντρικός Ήρωας

βατραχος

Πώς ένιωθε;

1. Αγαπη

2. λιγάκι δεν ηξερε πως να της το πει

Ο ερωτευμένος βάτραχος

Μια φορά ήταν ένας βάτραχος. Ο βάτραχος αυτός ένιωθε πολύ παράξενα. Μια μέρα που συνάντησε το φίλο του το γουρουνάκι του είπε:

1

Την άλλη μέρα ο βάτραχος έβαλε έξω από την πόρτα της πάπιας μια δέσμη με ωραία λουλούδια. Όταν τα βρήκε η πάπια χάρηκε πάλι.

- Ποιος άραγε μου έφερε αυτά τα λουλούδια; σκέφτηκε.

Ο βάτραχος δεν ήξερε πως να πει στην πάπια πόσο την αγαπά. Ήταν πολύ λυπημένος μέχρι που σκέφτηκε να αρχίσει να πηδά όσο πιο ψηλά μπορεί. Με αυτό τον τρόπο η πάπια θα καταλάβει πόσο την αγαπώ.

3

Συμπλήρωσε ό,τι λείπει:

Ένας βάτραχος αγαπούσε μια .πάπια..... Μια μέρα ζωγράφισε μια .ζωγραφιά..... και πήγε και την έβαλε κάτω από την .πόρτα..... της κυρίας πάπιας. Ο βάτραχος πήρε στην πάπια και μια δέσμη από .λουλούδια..... Δεν ήξερε πώς να της το πει ότι την αγαπά. Μέχρι που άρχισε να .πηδά..... όσο πιο ψηλά .μπορούσε..... Κάποια στιγμή έπεσε και .χτύπησε! ..... Η πάπια έτρεξε .....κοντά..... του. Σ' αγαπώ! της είπε. Από τότε ο βάτραχος και η .....πάπια..... είναι πάντα μαζί.

Γράφω τις λέξεις:

Βάτραχος: Βάτραχος.....

Πάπια: Πάπια.....

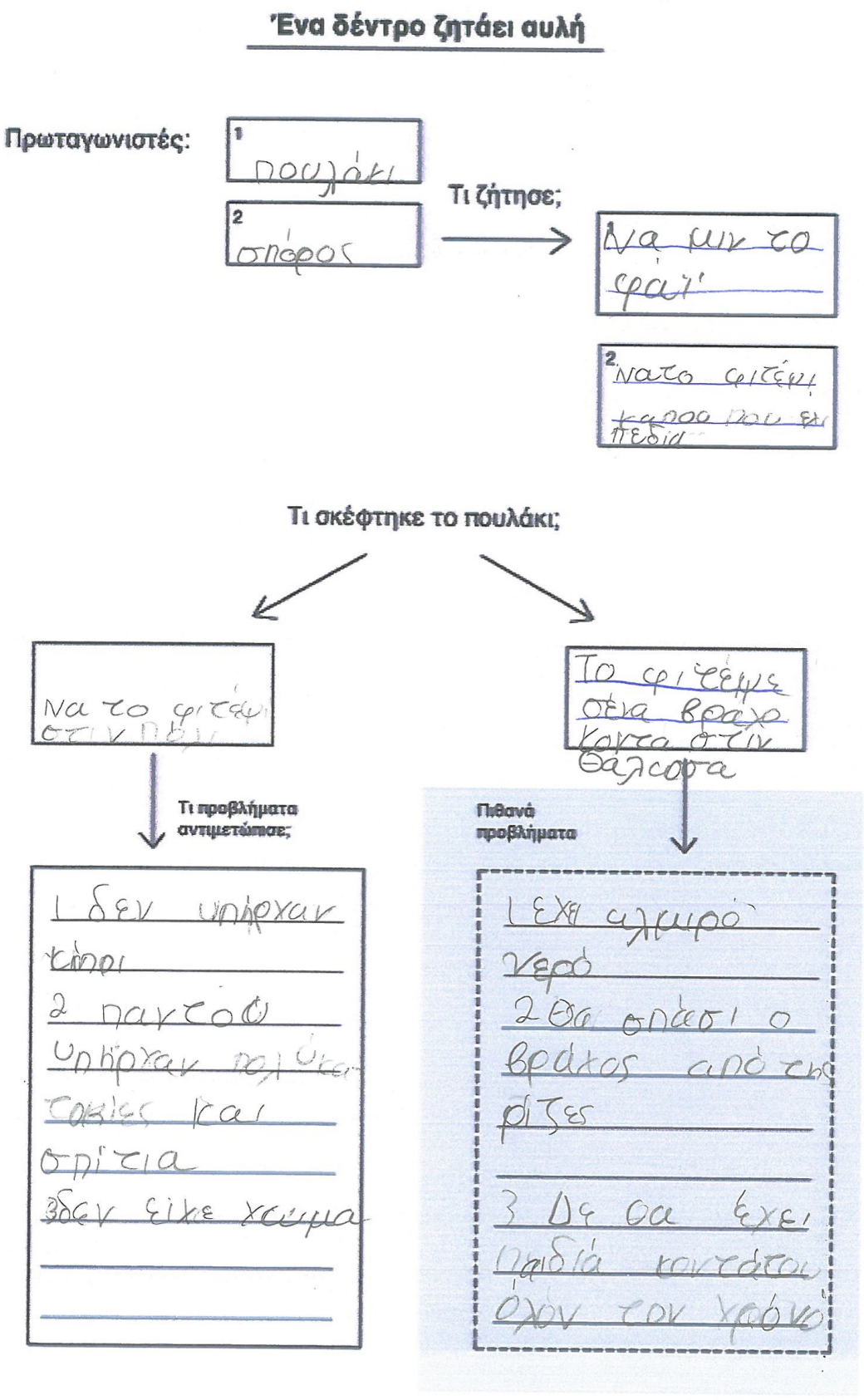
Γουρουνάκι: Γουρουνάκι.....

Ζωγραφιά: Ζωγραφιά.....

Λουλούδια: Λουλούδια.....

Αγαπώ: Αγαπώ.....

Appendix 22 – Athena: Second lesson



Πού αλλού θα μπορούσε να φυτέψει το σποράκι;

δίπλα από ένα σχολείο

γιατί;

(1) Θα το βλέπαν τα παιδιά κάθε μέρα (2) Θα έχει καθαρό νερό (3) Θα έχει χώμα

δίπλα από το σπίτι μου

γιατί;

(1) Θα το προστατέβα από τους ξυλοκόπους (2) Θα έχει καλύτερα παιδιά? Θα κάνουν φαλιά τα χειμώνι και θα έχει πάρα πολλά φύλλα

στην παιδική χαρά

γιατί;

(1) Έχει πολλά παιδιά (2) Έχει νερό κοντά (3) Έχει καθαρό αέρα (4) Και πολλά δέντρα.

Ένα δέντρο ζητάει αυλή

Μια φορά ένα πουλί πεινούσε πολύ. Έψαχνε κάτι να φάει μέχρι που βρήκε κάτι!

Βρήκε ένα σποράκι. Την ώρα που ετοιμαζόταν να το φάει άκουσε μια φωνή: «Μη με φας. Αν με φυτέψεις θα μεγαλώσω και θα γίνω ένα όμορφο δέντρο! Σε παρακαλώ, φύτεψε με κάπου που έχει παιδιά».

Το πουλάκι συμφώνησε με το σποράκι. Το πήρε προσεκτικά με το ράμφος του και άρχισε να πετά για την πόλη. Εκεί είχε πολλά παιδιά.

Στην πόλη όμως, δεν υπήρχαν κήποι για να φυτέψει το σποράκι. Παντού υπήρχαν πολυκατοικίες και σπίτια. Πουθενά λίγο χώμα.

Τελικά το φύτεψε σε ένα βράχο κοντά στη θάλασσα. Εκεί τα παιδιά το φρόντιζαν. Το πότιζαν, το σκάλιζαν και το παρατηρούσαν να μεγαλώνει.

Συμπληρώνω:

Ένα πουλάκι βρήκε ένα .σπορακι.....

Το πήρε για να το ..φαει..... στην ..πολη.....

Εκεί δεν υπήρχε λίγη ..νερο..... Τελικά το

φύτεψε σε ένα .χωραφι..... Εκεί τα παιδιά πήγαιναν

και το .....βλεπανε.....και
το ποτιζαν

Σωστό ή λάθος:

Το πουλάκι βρήκε ένα σποράκι. [✓]

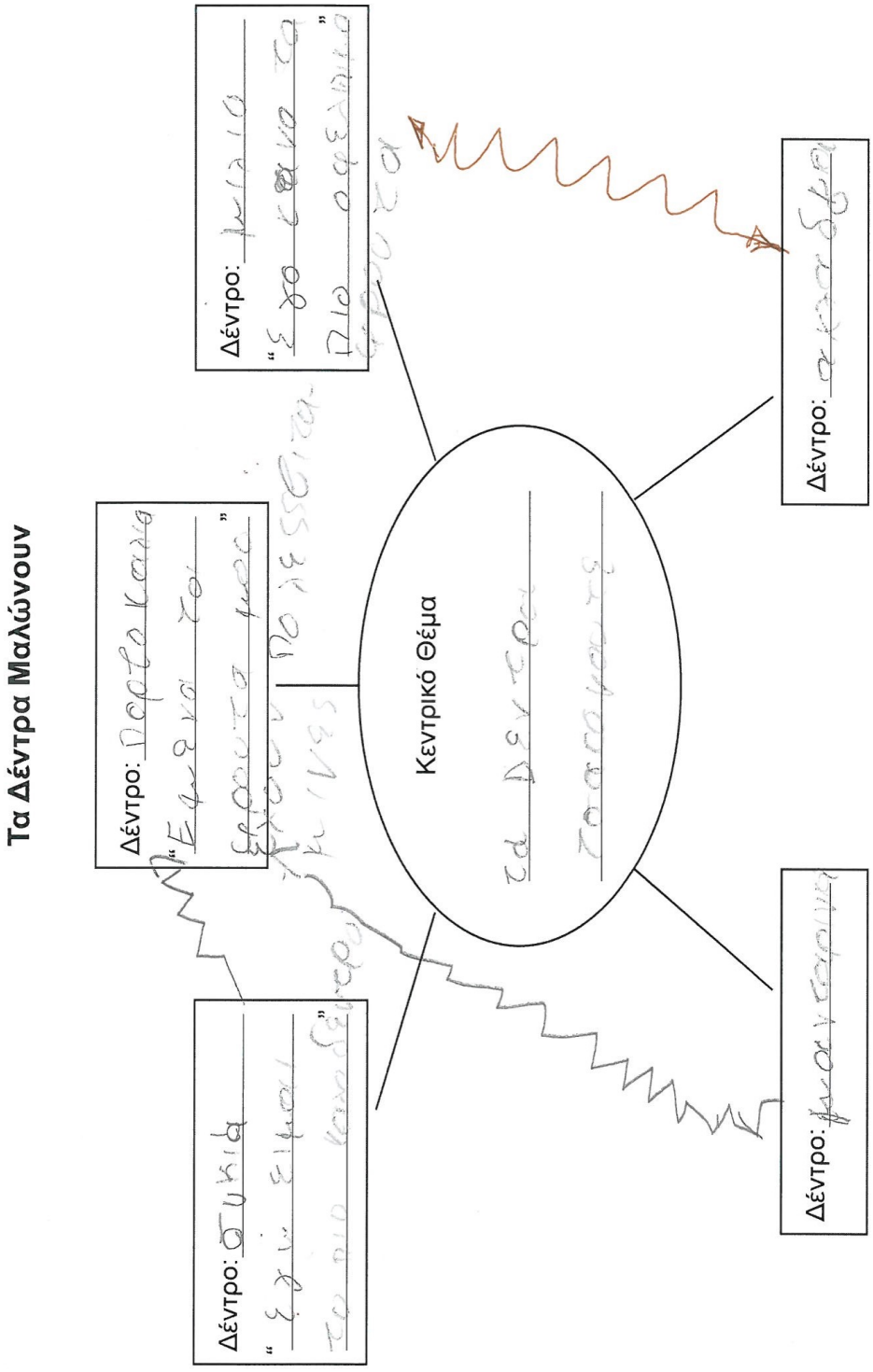
Το πουλάκι βρήκε ένα σκουληκάκι. [✗]

Το πουλάκι έφαγε το σποράκι. [✗]

Το πουλάκι φύτεψε το σποράκι. [✓]

Τα παιδιά φρόντιζαν το σποράκι. [✓]

Appendix 23: Athena: Third lesson

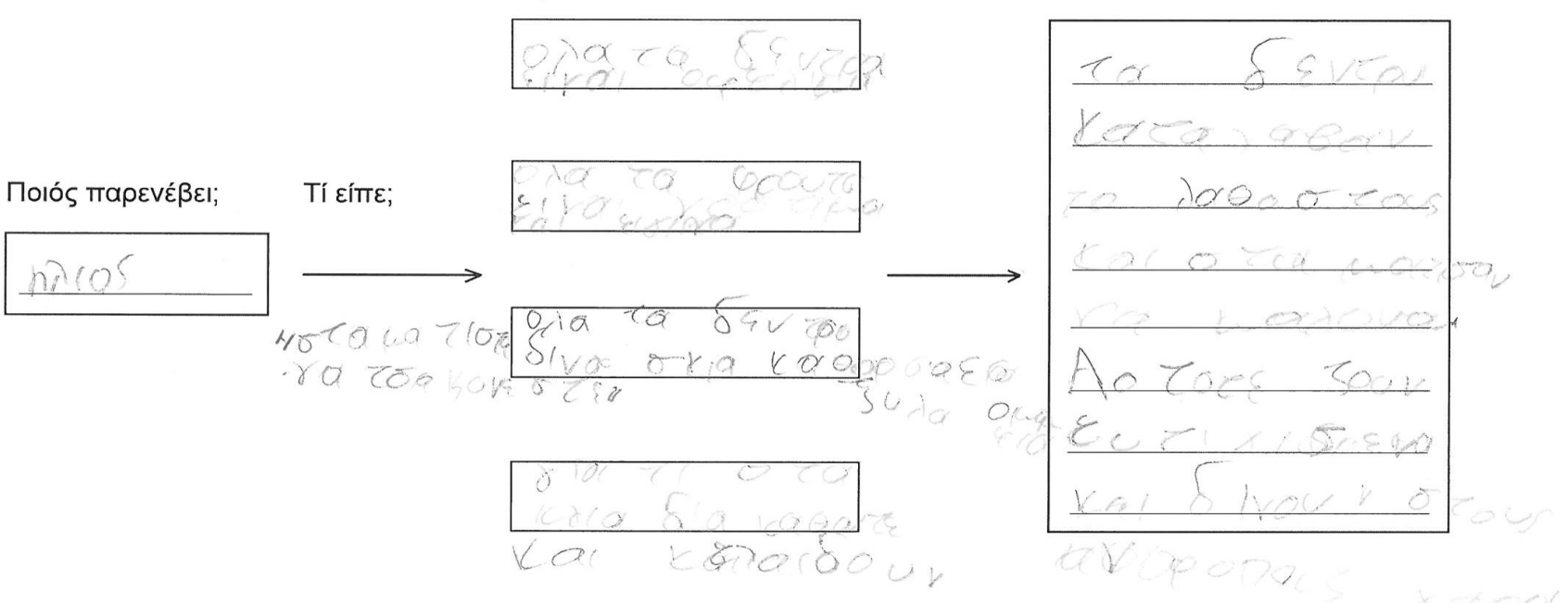


Ποιός παρενέβει;

Τί είπε;

Για ποιούς λόγους;

Αποτέλεσμα - Τί έγινε τελικά;



Τα δέντρα μαλώνουν

Μια φορά τα δέντρα άρχισαν να μαλώνουν. Η μηλιά μάλωνε με την αχλαδιά. Η πορτοκαλιά μάλωνε με τη μανταρινιά. Η συκιά έλεγε: «Εγώ είμαι το πιο καλό δέντρο». «Δεν είσαι εσύ» απαντούσε η πορτοκαλιά. «Εμένα τα φρούτα μου έχουν πολλές βιταμίνες». «Εγώ κάνω τα πιο ωφέλιμα φρούτα» έλεγε η μηλιά. Τσακώνονταν και δε σταματούσαν. Μέχρι που ο ήλιος άκουσε τους καβγάδες στο περιβόλι των

δέντρων. Κατέβηκε χαμηλά στη γη και είπε:

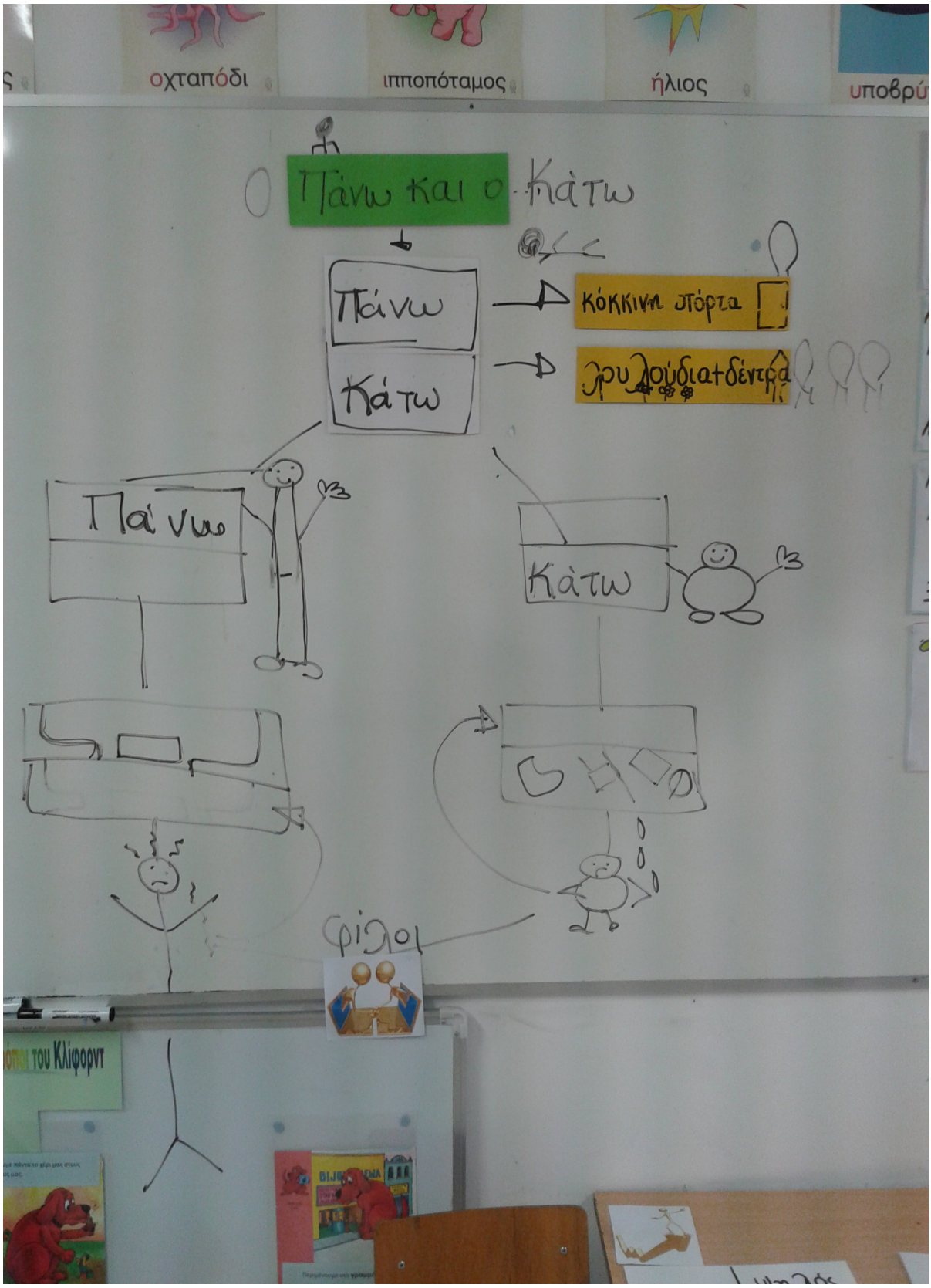
«Δέντρα μου, δεν είναι σωστό να μαλώνετε. Είσαστε όλα ωφέλιμα. Τα φρούτα σας είναι όλα νόστιμα και υγιεινά. Και εκτός από τα φρούτα σας δίνετε στους ανθρώπους τη σκιά, τον καθαρό αέρα, τα ξύλα και την ομορφιά σας. Και στα κλαδιά σας κελαηδάνε τα μικρά πουλιά». Αυτά είπε ο ήλιος και έφυγε. Τα δέντρα κατάλαβαν το λάθος τους. Από τότε ζουν ευτυχισμένα και δίνουν στους ανθρώπους χαρά!

ΠΕΡΙΛΗΨΗ

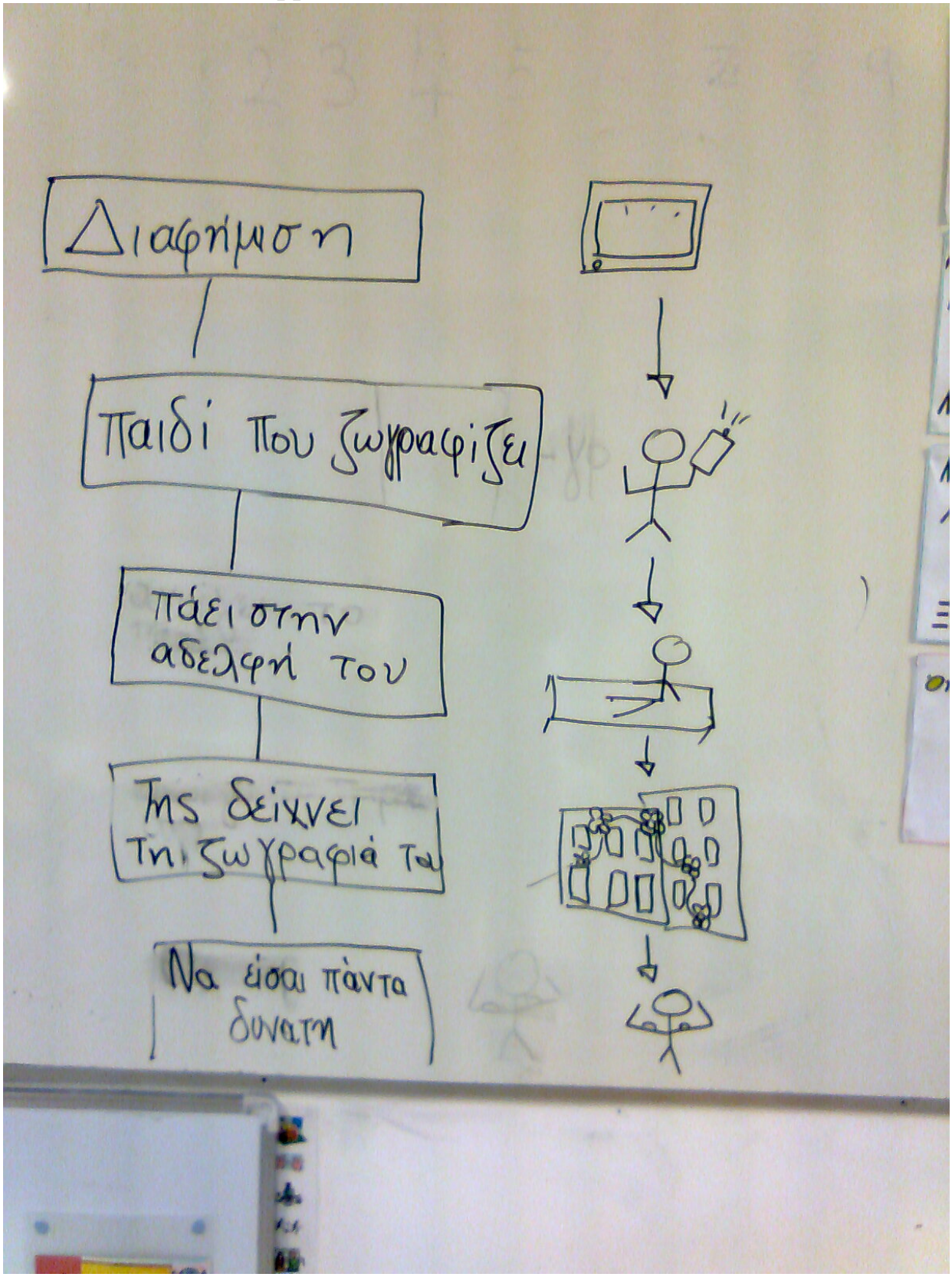
Γράψε με λίγα λόγια την ιστορία

Μια φορά τα δέντρα
αρχίσαν να τσακώνονται.
Έτσι πρόσταξε ο ήλιος και τους είπε:
<< δέντρα μου καλά δεν είναι
νόστιμα
αυτά που σας έφτιαξα. Δείξτε
μου, κάποιο έργο καλύτερό.
Δείχτε σ' τους ανθρώπους
ο μεγαλύτερος" Είπε ο ήλιος
και έφυγε. Τα δέντρα
έμειναν Ειρηνικά.

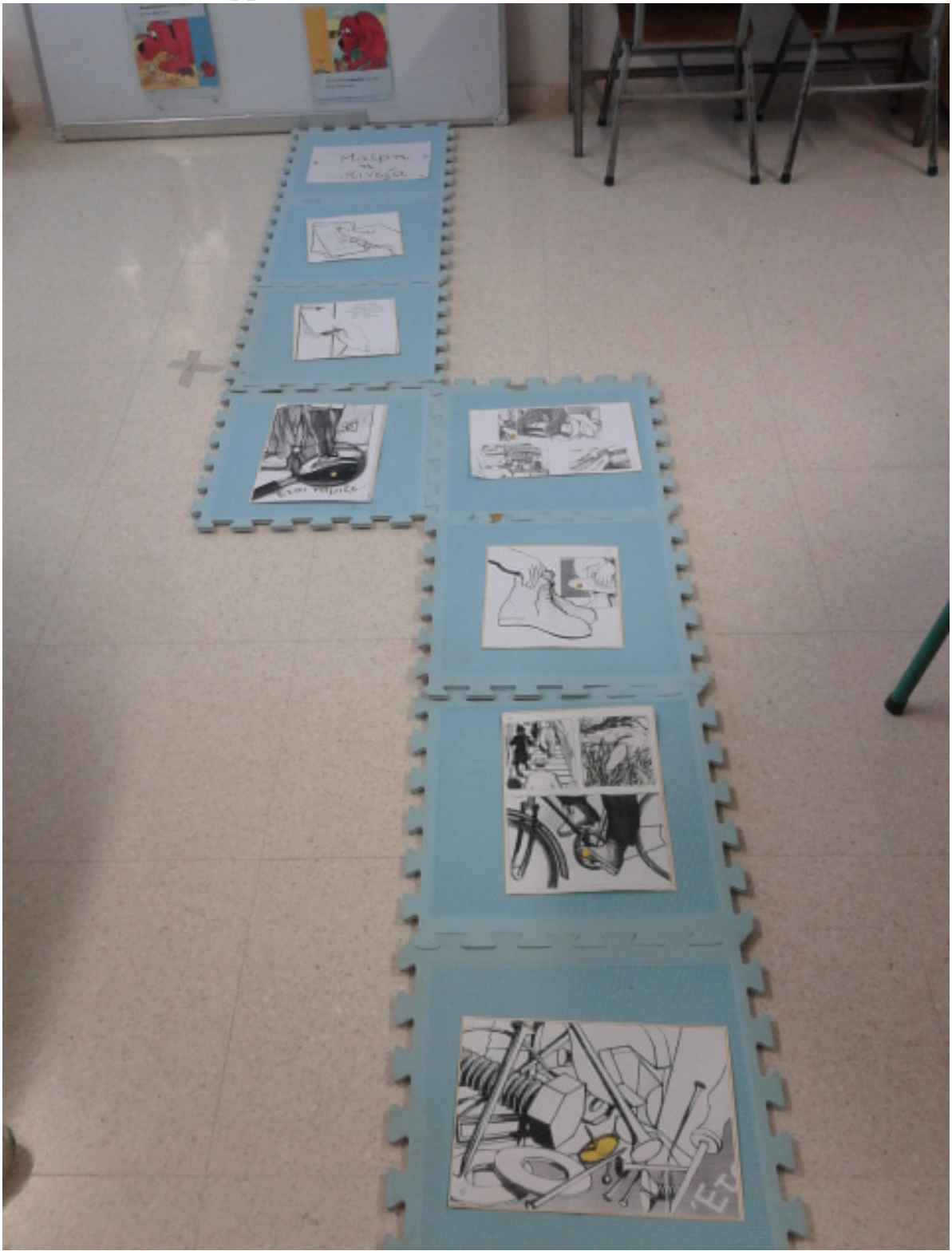
Appendix 24: Hera: First lesson



Appendix 25: Hera: Second lesson

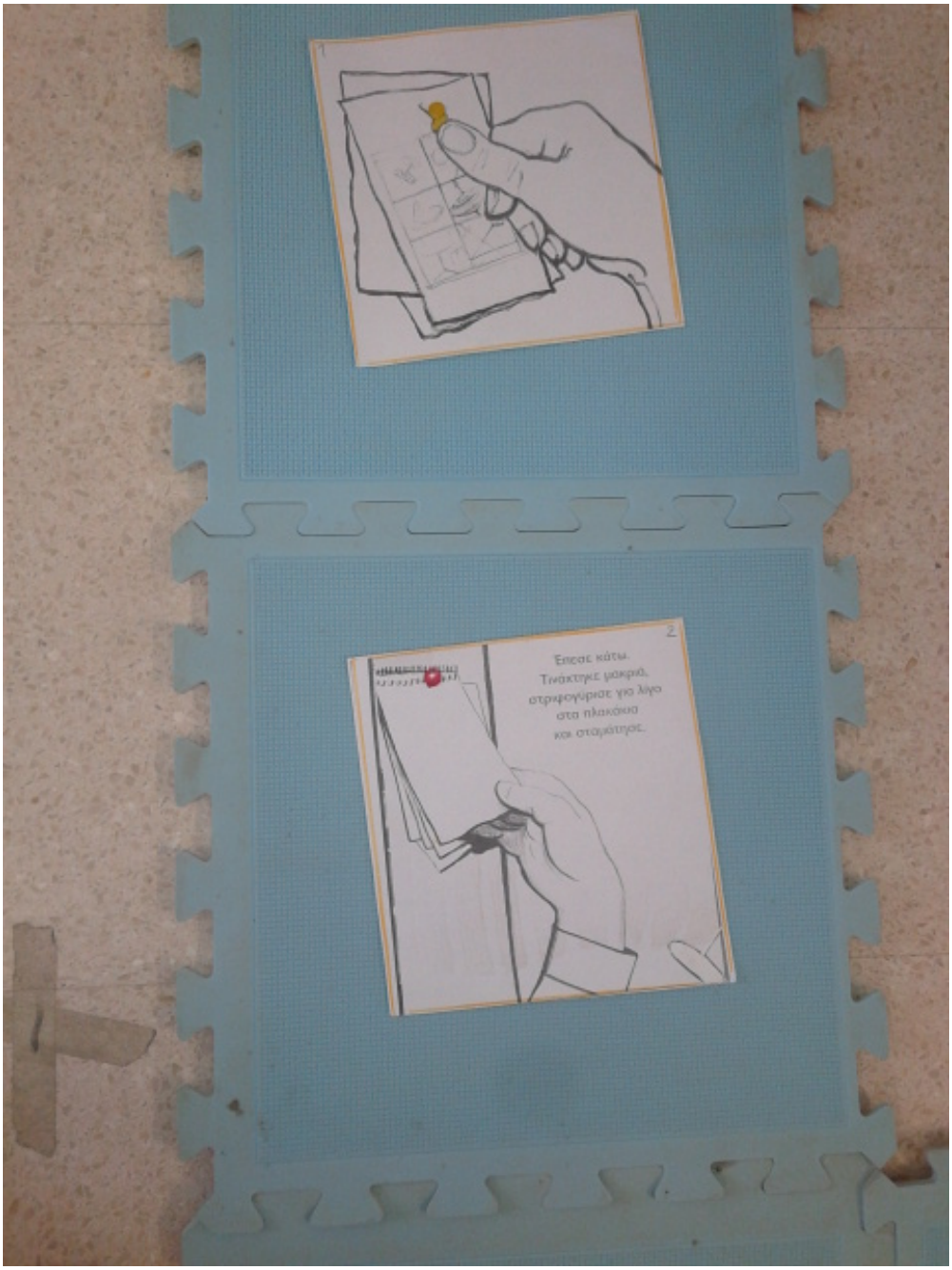


Appendix 26: Hera: Third lesson

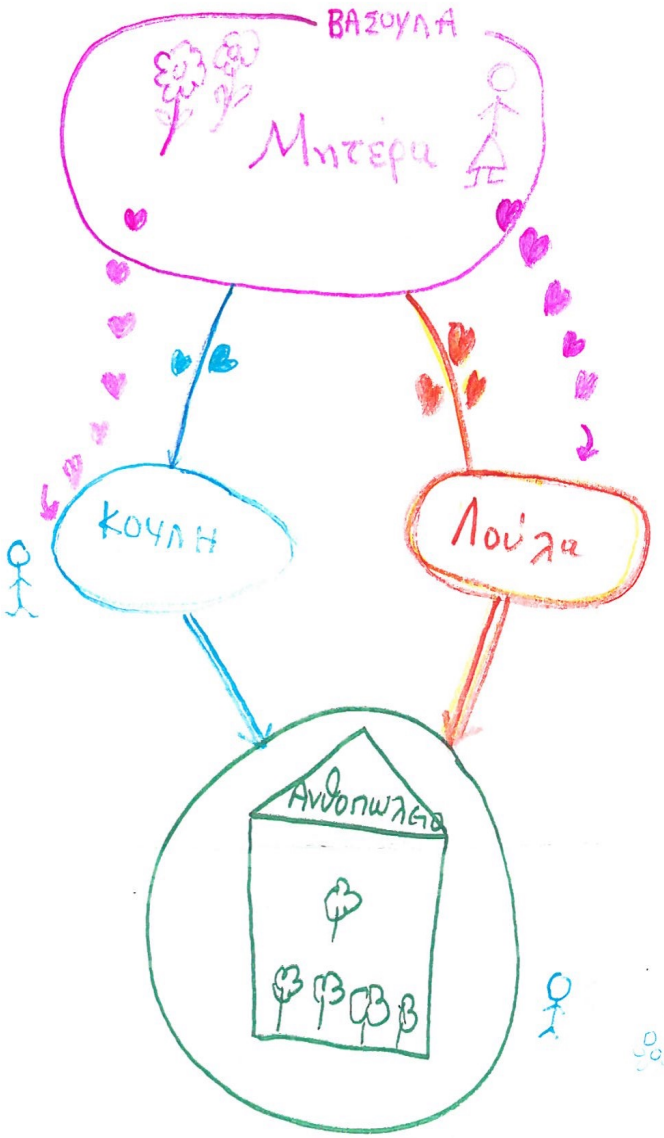



Μαίρη
η
πινέζα


2
Έπεσε κάτω.
Τσάκτηκε μακριά,
στριφογύρισε για λίγο
στο πλακάκι
και σταμάτησε.
Έτσι νόμιζε...
3


1
2
Έπεσε κάτω.
Τινάχτηκε μακριά,
στριφογύρισε γιο λίγο
στα πλακάκια
και σταμάτησε.

Appendix 27 – Demetra: First Lesson



Λουλούδια για τη μητέρα

Ο Κούλης και η Λούλα αγαπούν τη μητέρα τους. Κι εκείνη τους αγαπά πολύ.

Το όνομά της είναι Βασούλα. Σήμερα γιορτάζει.

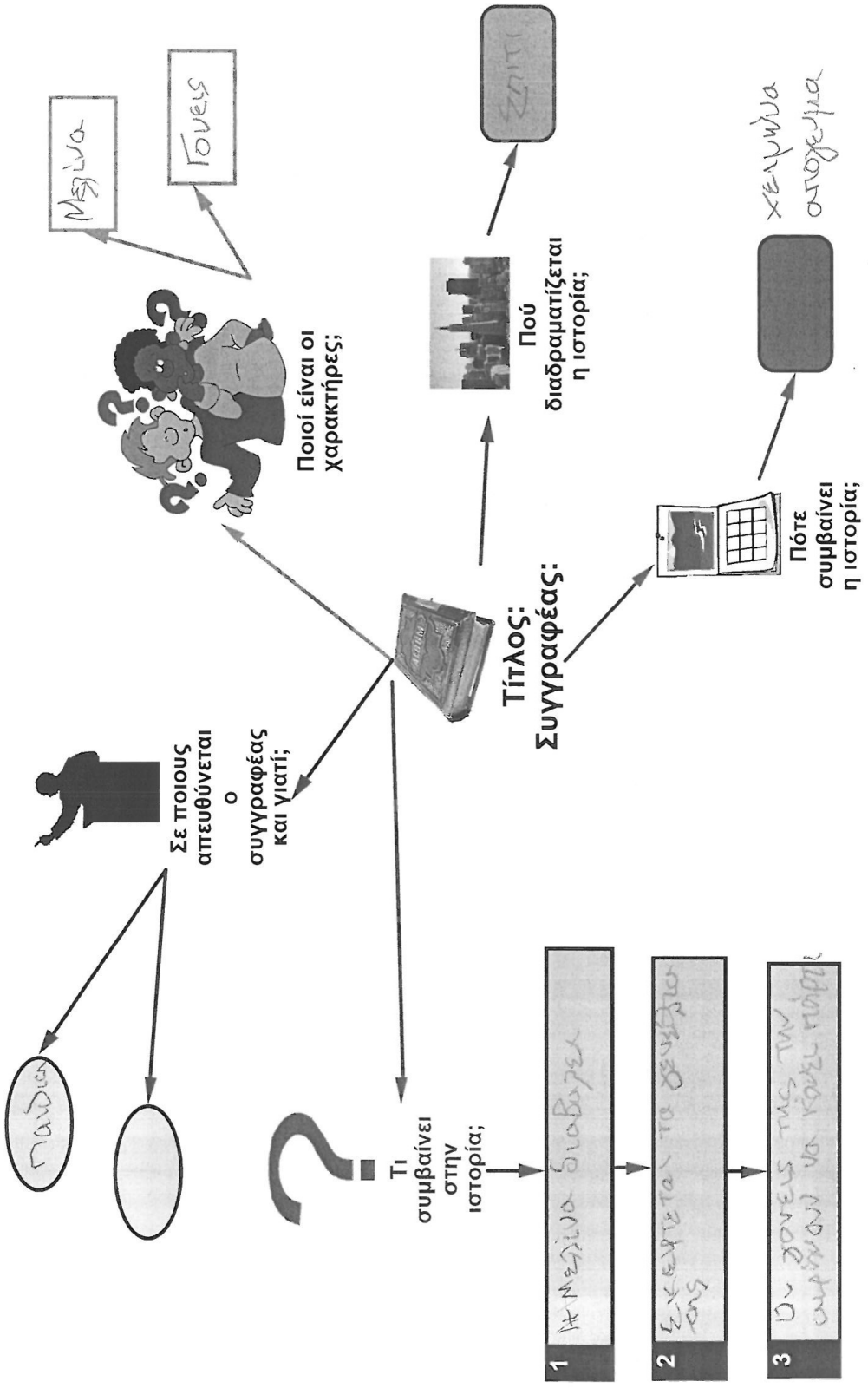
Ο Κούλης και η Λούλα πήγαν στο ανθοπωλείο. Πήγαν να αγοράσουν λουλούδια. Τα έδωσαν στη μητέρα και είπαν:

– Χρόνια Πολλά, μητέρα. Σε αγαπούμε πολύ.

1. Διάβασε το κείμενο.
2. Υπογράμμισε τις λέξεις που περιέχουν το "ου".
3. Γράψε όλες τις λέξεις που περιέχουν το "ου" στο τετράδιο ή στην καρτέλα σου.

Γ - 8

Appendix 28 – Demetra: Second lesson



Αξέχαστα γενέθλια

Σε λίγες μέρες η Μελίνα έχει γενέθλια. Θα γίνει εννέα χρόνων. Κάθεται στο τραπέζι της κουζίνας . Μερικά χειμωνιάτικα απογεύματα προτιμά να διαβάζει εκεί. Έχει απλώσει τα τετράδια της, τα χρωματιστά μολύβια, τις γόμες και τα βιβλία της. Αύριο είναι Κυριακή και θέλει να είναι ελεύθερη. Έχει αρχίσει με τα Μαθηματικά. << Γράφω τέσσερα στο πηλίκο. Τρεις τέσσερις δώδεκα, από δεκατρία ένα>> ψιθυρίζει κάνοντας διαίρεση.

Ονειρεύεται τη γιορτή των γενεθλίων της . Θα γεμίσει το σπίτι με δώρα και μπαλόνια. Κόκκινα, κίτρινα , πράσινα. Θα κεράσει γλυκά τα παιδιά. Θα σβήσει τα κεράκια στην τούρτα.

- Πότε θα αρχίσουμε τις ετοιμασίες για τη γιορτή μου? Πότε θα γράψουμε τις προσκλήσεις για την τάξη μου?
- Μα πόσους θέλεις να καλέσεις ? τη ρωτάει η μαμά της. Εσύ χρειάζεσαι πλατεία και όχι σπίτι. Πότε θα προλάβω να κάνω τόσες ετοιμασίες? Τελείωνε τα μαθήματα σου.

Η Μέλινα ξαναγύρισε σκεφτική στη διαίρεση. Κάθε χρόνο οι ίδιες δικαιολογίες. Κάθε χρόνο οι μεγάλοι κανονίζουν τα γενέθλια της. Είναι πολύ λυπημένη.

- << Η τώρα ή ποτέ>> είπε μέσα της και πετάχτηκε απότομα:
- Θέλω να κάνω μια μεγάλη γιορτή για τα γενέθλια μου. Κάντε μου το χατίρι. Μια φορά γίνεσαι εννέα.

Οι γονείς της κοιτάχτηκαν στα μάτια με νόημα και ξέσπασαν σε γέλια.

- Άμα σου μπει κάτι στο μυαλό... είπε ο πατέρας και τη φίλησε στο μάγουλο.
- Τέλεια. Τρέχω να τηλεφωνήσω στον Κώστα , φώναξε ενθουσιασμένη.

Όλο το βράδυ έβλεπε στα όνειρα της κόκκινα, κίτρινα, πράσινα μπαλόνια. Έμεναν έφτα μέρες μέχρι να γίνει εννέα χρόνων.

Appendix 29 – Demetra: Third lesson